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ABSTRACT

The English version of a Polish journal on higher education is presented. Included are 19 articles on the problems and experiences of these institutions, three articles on teacher's workshops, and three review articles. Titles and authors include: "Polish Science in 1973-1986" (Benon Miskiewicz); "The Humanism of the Contemporary University: The Contribution to the Establishment of a New Cultural Order" (Bogdan Suchodolski); "Institutions of Higher Education and Economic and Social Crisis" (Jan Szczepanski); "Higher Education in the Forty Years of People's Poland" (J. Kluczynski); "Research and Teaching the Academy of Social Sciences" (Jarema Maciszewski); "The Contribution of the Humanistic Sciences to the Shaping of Social Attitudes in People's Poland" (Jozef Andrzej Gierowski); "University: Problems and Experiences" (Grzegorz L. Seidler); "Selection of the Content of Higher Education an Outline of the Criteria Governing the Choice" (Czeslaw Kupisiewicz); "The University Teacher: Professional Ethos and Educational Model" (Jan Legowicz); "A Teacher's Duty" (Witold Benedyktowicz); "Some Factors of the Quality of Education" (Zofia Kietlinska); "The Contemporary Technological University" (Janusz Tymowski); "Open University in Poland: Assumptions and Prospects" (Janusz Gorski); and "Preconditions of Educational Effectiveness in Higher Education" (Kazimierz Jaskot). (SW)

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"Życie Szkoły Wyższej" ("The Life of the Institution of Higher Education") – the Academic Teachers' Journal

by
Jan Legowicz

Academic teachers' milieus have recently repeatedly verbalized their important concern: the need for maintaining the continuity and exchange of experience both as regards the complex and frequently difficult teaching activities as well as educational measures[1], the latter being not only an immediate association for the former but also the aspect of teachers' work completely identified with techniques of instruction. Meanwhile it is rarely realized that the post-war period alone has seen accumulation of imposing resources of experience that can now be found in 30 annual files comprising more than 200 numbers of "Życie Szkoły Wyższej", the monthly that boasts the status of being the organ of this country's academic schooling. The pity is that this fact has been overlooked by the authors of the innumerable programmes of reforming the methods of education and teaching and the said experience has not been properly utilized by academic teachers.

It would be no exaggeration or great mistake to say that taking into consideration the 30-year-old achievements of the monthly's editors it has proved to be highly educational both as regards its articles and essays concerned with teaching and those on methods of affecting students' attitudes and morale. The monthly's writers have been drawing both on the experience of research work and teaching activities pursued by imaginative and diligent contemporary academic teachers, and also on achievements that have become part of history of Poland's higher education. The achievements include not only purely theoretical studies but also the accomplishments which, for the most part originated from practical experience of teaching pursuits, that represent a proper context for their assessment. All this taken as a whole, entitles us to speak of a heritage of the monthly in which the history of Polish higher education dialectically dovetails with its present and its new requirements and challenges in part consequent upon determinants which first emerged in the past.

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[1] The speech delivered by the editor-in-chief of „Życie Szkoły Wyższej" at the meeting of the monthly's editors with the Rectors of Cracow's Institutions of Higher Education, on May 27, 1983.

Publications concerned with teacher's experience of the use of techniques of instruction and those dealing with some of the many aspects of theory of upbringing represent large and especially valuable part of the heritage, in which special attention has been given to the problems related to unity of teaching and educational measures being the two inseparable constituents of the process of all-round development of young people in the course of acquiring higher education. The facts and views presented in those publications clearly gainsay the opinions aired by some that the young people coming to universities need nothing but learning and instruction, for upbringing has been done by schools they graduated from. The monthly's writers have often overthrown this myth in their articles contending that the desirable ideal of a student is a young person engaged in acquisition of knowledge as well as obligated to pursue general self-improvement aided by his academic teachers. The ideas respecting unity of upbringing and instruction still remaining as typical as they were when first expressed by the authors are worth extracting from the individual numbers of the monthly for the purpose of producing a compilation to be used by academic teachers.

The publications on problems of teaching and upbringing have been complemented by articles dealing with variety of aspects of research work pursued by academic teachers. The underlying idea was to show research activeness as the foundation for upbringing and instruction. The editors have by no means wished to engage in competition with the periodicals concerned solely with the problems of science or with methodology of research work. Still the monthly has always been intended to explore this subject area as the realm where academic teachers "are born", their skills begin to take shape so as the wisdom and prudence they need as educators. The editors have set it as their objective to show the research arsenal (meaning methods plus all kinds of experience and materials a researcher avails himself of) as a teacher's benefice which enables optimum utilization of his knowledge and educational wisdom, as well as the simultaneous and harmonious progress of his teaching and research acquirements.

The editorial board have also given special attention to, and handled with much care the matter of providing encouragement for the writers to take up topics from the realm of moral, social as well as ideological problems. No less careful have they been in choosing ready articles and essays for publishing. The underlying intention has been to have texts which might inspire and animate academic teachers of all lines of study, showing extremely diverse turns of mind, and different outlooks, to give contribution to the creation of the proper academic air at institutions of higher education, to capture the attention of especially junior academic teachers in order to make them develop the sense of civic and cultural and moral responsibility for students, a prerequisite of establishing inter-generation partnership, which, however, should not involve never-ending and unjustified concessions and flattery to please the young people. The editors have taken pains to prevent publications on this extremely delicate subject area from becoming merely didactic moralization. While at times when they could hardly remain impartial in choosing materials for publishing, they would always leave a margin for the readers' own reflections and "a self-examination".

The monthly has also carried a variety of publications on organizational matters and diverse information on the functioning of higher education in Poland and abroad. Academic schooling in this country undergoes never-ending organizational changes, part of which seem to be quite unnecessary. The monthly's readers have been regularly informed about the changes, part of which were short-lived but essential. Those publications have sometimes had a bearing on organizational measures taken by the schools themselves or on the relevant decisions coming from the outside.

It also seems worth-underscoring that the editors have always welcomed contributions provided by young academic teachers. Such débuts have been referred to with special care and friendliness. Due interest has been shown in their substance, and the aspirations involved have always met with understanding.

This brief and very general characterization of the monthly has been intended to point out to those aspects of its 30-year-old record that may prove to be essential for the purpose of its further editing. Since such aspects can easily be found, one can say that the monthly is not as old as it might seem to be. Thus there are important reasons to believe that it may well continue to reflect the current and future situation in the Polish academic schooling. As we look into the near and distant future of our higher education, worth-considering seem to be the following matters: a. the desirable and optimum conception of the monthly as a periodical reflecting the concerns and interests of academic teachers; b. the range of subjects to be taken up, due regard being paid to their topicality; c. the extremely vital problem of the criteria to be employed in choosing the main writers and collaborators providing irregular contributions; d. reconsideration of the tasks and targets to be pursued by the monthly in view of the new challenges stemming from the development of higher education and its teachers.

1. The periodical known as an organ of higher education undoubtedly has the peculiar character of which it must not be stripped. The specificity should rather be protected, and supported by all means. For this to take effect, the periodical's subject-matter should as far as possible reflect not only the great concerns of higher education, but also its every day and routine tangible experiences. It should give contribution to the process of creating full human

beings. Moreover, it seems no exaggeration to say that one of the extremely vital concerns of academic schooling is the recurring problem of the academic teacher which involves the questions of: his qualifications, and their compatibility with the tasks he is supposed to pursue, and his responsibilities, the authority he enjoys among students as a researcher, his performance as a teacher, the moral responsibility he must show as an educator, his private personality and the characteristics he is expected to show as a teacher and also as a participant and co-originator of the overall life of the academic schooling, including its self-government and its quality.

Thus worth considering is the legitimacy of giving priority to these questions in the making of the conception of our monthly to be effectuated in at least the nearest future. It seems that the readers might welcome presentation of views and ideas regarding the calling, situation, responsibilities and role of the academic teacher examined not only and not necessarily in pragmatic terms, but also taking into account the demand for the teacher in the individual types of institutions of higher education. It would certainly be a mistake to argue that this subject area is too specialized to arouse interest among the potential readers. For being in the picture of the concerns and anxieties our higher education is plagued by, one can easily conclude that all of these problem do have some direct or indirect implications for not only the every-day practice of teaching but also for the perception of the academic teacher as a core and mainstay of higher education.

The proposed conception of the range of problems to be dealt with in the monthly is by no means intended to glorify the teacher's personality or to generate an atmosphere of resentment at unsatisfactory or non-existent appreciation of it. The actual intent is to identify and analyze those aspects of the functioning of academic schooling in which the teacher appears as the principal subject inalienably involved in all spheres of operations and every day life of academic teaching. Thus being the organ of higher education, the monthly might better discharge its relevant responsibilities if it conveyed more faithfully and adequately the attitudes and opinions of academic teachers. Con-

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sequently, the monthly could provide a more accurate depiction of the diverse aspects of operations of academic training includinga fair treatment of the problem of the expectations towards the teachers that should involve not only the requirement of the teachers' mere presence at schools but also that of their creative performance legitimizing the existence of higher education.

2. The related problem is designation of the range of subjects to be dealt with by the monthly or at least the criteria for their selection. The idea that suggests itself in this connection is to give priority to discussing the problems relating to the real, potential and desirable input of the academic teacher's current activeness as well as to its real or desirable output, which, however, should not result in purely utilitarian production, that might turn the monthly's publications into narrowly specialized teaching aids. The editors will continue to feature a wide range of subjects intended for readers with diverse interests. Still in the light of the hitherto experience, it seems essential and desirable that this ever open catalogue of subjects should always show links and correlations with its foundation and source of inspiration: teacher's experience of research work, teaching and attitude-forming activities. The editors have taken pains to meet "the demand" for discussion of specific subjects, to provide publications on vital topical issues, as well as those likely to become essential in the near or more distant future. Besides, worth considering seems to be the idea of keeping and regular up-dating of records of problems raised by academic teachers with the view to subsequent publishing or analyzing in the monthly's publications. Such records might represent an important complement for the packets of problems provided by the Ministry and the Main Council. The editors have already made some partly successful attempts to carry the idea into effect, which, however, has not become permanent practice as yet. Besides, no institution or individual has offered the editors assistance in the pursuit of the project. Highly desirable is the involvement of particular institutions of higher education which could take the form of, for instance the institutions' representatives' regular contacts with the editors designed to supply them with information on the

topical concerns of their institutions, their achievements, plans and aspirations, as well as the experience they would like to share with others. The editors have extended numerous relevant invitations and proposals to institutions of higher education, which, however, failed to actively respond to those offers of starting the co-operation. While the editors' invitations remain unanswered, a variety of problems and difficulties continue to negatively affect the institutions' and teachers' performance among other reasons because they were not explicitely pointed out to at the right moment. Consequently, the schools and their teachers came under control of the adverse factors instead of curbing them.

3. The editors have always welcomed contributions by all academic teachers as well as their constructive assistance in editing the monthly.

The increasing long-standing participation of young academic teachers in producing articles and collecting information needed by the editors as well as the growing number of their own publications coming out in the successive numbers of our monthly for many years now, have become important part of its history. The editors hope to continue this valuable collaboration, which is intended among other things to help young academic teachers develop, as soon as possible, genuine concern in his institutions' affairs as well as in all that he should not be indifferent to, considering the current state and prospects for development of higher education in this country. The adequacy of this policy lies in the fact that the young teachers, being usually more engaged in work with students than their elder colleagues, can make more observations of the factors exerting negative or favourable impact on the functioning of academic schooling. Such experiences given their proper and constructive depiction in the monthly's articles may well prove beneficial not only as additional knowledge on the life of institutions of higher education but also as stimuli arising from the ranks that may have a bearing on the primary objective: the effectiveness of educational pursuits of academic training.

The editors' determination to continue collaboration with young academic teachers and to invite new young writers to supply their contribution to the monthly's contents goes hand-in-hand with the recognition of the importance of drawing upon the experience of senior higher education staff, as it is them who are seen as those responsible for the standards of performance of academic training, meaning the responsibility not for the institutions' operations as such but for educating specific individuals for the needs of the nation. The relevant theoretical studies, the long-standing range of teachers' experience, the individual teachers' achievements, and those which are perceived as product of the higher education staffs' collective effort, the tradition of teaching and character-forming measures, the prospects for the development of higher education as well as all that appears to be a product of teachers' dedication to their job represent the universities' inner and university tie that the editors must not fail to describe in the monthly.

It is therefore highly desirable that such circles of authors engaged in collaboration with the editors, supplying their contribution to the creation of the monthly's contents might become each in his own way and collectively the spirit movements of the periodical, at the same time, however, sharing the responsibility for it. It is also quite natural that work for the monthly concerned with the problems of intense concern to the writers or belonging to the scope of their research or didactic pursuits is pleasant and easier than writing on subjects in which one has little genuine interest. However, it is also to be remembered that producing a short article or an essay on problems closely related to one's practical experience may require enormous amount of concentrated effort as the writers find it difficult to provide reflectively profound, straightforward and natural theoretical argument. There has been much skepticism and many adverse factors that are difficult to surmount and discourage potential writers from taking up subjects from beyond the realm of their own specialization. However, the academic teacher even being an eminent scientist and researcher, must not confine his interests to just one realm, and consequently he may well be expected to show concern also in problems stemming from his calling to be a teacher. The monthly will always be open to the presentation of ideas and reflections belonging to this area, which might encourage formation of a creative group of writers, experts and votaries engaged in promotion of the cause common to all types of institutions of higher education: creating man having more qualities deserving respect and recognition than the mere holding of the diploma.

4. Thus the determination to ensure that the monthly reflect the diverse aspects of the academic teachers' activity should be complemented by the teachers' reconsideration and specifying of the objectives and aims the periodical is to serve in the near future.

It seems, however, that an important question to be raised in this connection is the monthly's availability in not only libraries or reading-rooms but also in the individual departments or their units. Thus we need to know if there is and if so how big the demand for the monthly is among the potential, individual, group, or all-university subscribers. Although it may not always be possible to answer this question, still it compels us to give some attention to the problem of the current state and principles of distributing the monthly, its availability and consequently of the size of demand for it among academic teachers. The size of our periodical's edition which has not changed for many years now and its inavailability at news stands except 2 or 3 copies delivered to the Foreign Book and Press Centres seem to indicate that institutions of higher education remain the principal and reliable (in terms of the number of copies ordered) subscribers. The supposition that suggests itself at this point is that the reliability might be a result of the mechanical extending of subscripiton designed most of all for the needs of libraries and reading--rooms, which puts individual subscribers or departments and units at disadvantage.

Thus discussion of the tasks and targets of the monthly must take account of the optimum requirement of the monthly's availability to all members of the academic teachers' community, who might employ it as one of the instruments facilitating progress of educational pursuits. Consequently, the tasks and objectives of the monthly could not only overlap, but also be identical with the tasks and objectives of academic teachers, the former and the latter somehow forming one whole. One could even speak of the existence of a feedback situation.

Being fully aware of this, the editors creating the monthly with enormous dedication to the job wish to be more than an echo of the expectations, requests and recommendations expressed by others. The editors are determined to respond to the expectations in association with university milieus not only by providing objective information. They wish the periodical were also helpful in responding to the problems of intense concern to the academic training and consequently the importance of the relevant tasks were seriously and fully recognized and approved of by the teachers' inter-university community. For our monthly must not serve the promotion of objectives and tasks different than those pursued by the community and variety of their implications.

5. Wishing to find out about the readers' expectations, the editors organize meetings with representatives of institutions of higher education, which give them the opportunity to look at the monthly with the eyes of the reader, thus learning who and where reads the periodical, how useful its publications potentially are. The important advantage of holding such meetings is the knowledge about the real impact of the monthly and about the usefulness of its publications covering a wide range of problems concerning the academic teacher and consequently the whole of this country's higher education. The editors are determined to make the monthly reflect even more faithfully than so far all the concerns of academic training and its teachers, which could help create proper conditions and friendly atmosphere enhancing the exchange of ideas.

It is also advisable that the editors should regularly review their achievements as well as critically assess the monthly's drawbacks and abortive editorial undertakings, which could help make the periodical a real organ of the academic teachers' community and facilitate pursuit of the sole objective of the teacher's calling and universities production: creation of man showing intellectual and cultural sophistication, the asset to develop truly humane attitudes.

Я. ЛЕГОВИЧ

„Жизнь высшей школы" — журнал вузовских преподавателей

В кругах вузовских преподавателей все чаще обращается внимание на необходимость поддерживания непрерывности и обмена опытом в области обучения и воспитания. Накопление этого опыта — большого количественно и качественно-сохраняется в более 30-годовых комплектах нашего издания и в более, чем 200 номерах „Жизни высшей школы" — органа, который может гордиться тем, что является журналом польских вузов. Его содержание, посвященное жизни вузов, связано не только с теоретическими достижениями, как таковыми, но и с достижениями, мотивом, источником и валоризирующим критерием которых была, по большей части, преподавательская практика. В этом отношении журнал был всегда широко открыт для авторов, особенно из среды молодых вузовских преподавателей. Редакционная коллегия с особенной заботой и доброжелательностью относилась и постоянно относится к дебютам и никогда не показывает равнодушия ни к сущности их содержания, ни к выраженым в них стремлениям.

Журнал, являющийся органом высшего образования, заключает в себе своеобразный для себя смысл проблем и функций вузовского преподавателя, смысл его подготовки к поверенным ему задачам и к возложенной на него ответственности; его авторитета ученого, его дидактической мастерской и моральных обязанностей воспитателя, его человеческой и учительской личности, а также смысл его функций, как участника и одновременно одного из создателей всего того, что вяжется с жизнью высшей школы, с её самоуправлением и с её качеством, зависящим в большой степени от него самого. В таком понимании целей и задач „Жизнь высшей школы", как орган высшего образования, является вместе с тем журналом вузовских преподавателей.

Проблемно-тематическая структура журнала связана с вышесказанным, по крайней мере, в своих основных

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предпосылках. Принимается во внимание её широкий и открытый охват в неразрывной связи с нучно-исследовательской, дидактической и педагогической практикой преподавателя. Редакция заинтересована в том, чтобы поднятые проблемы отвечали реальным в них потребностям, которые были вызваны прежде всего производственными целями вуза, т.е. обучением и воспитанием человека.

Этим обьясняется также желание редакционной коллегии видеть в каждом вузовском преподавателе со автора журнала и творческого участника и его редактировании. Вместе с молодым поколением вузовских преподавательских кадров хотелось бы находить как можно более всесторонюю и безотказную опору в кругах доцентов, профессоров и преподавателей, которые в первую очередь несут ответственность за уровень высшей школы.

Необходимыми становятся связи как внутри одного вуза, так и межвузовские. Проявлением этих связей, а также их задачей будет формирование поколений, обладающих чем-то большим, чем только высшим образованием, т.е. не менее важным, чем профессиональный уровень, станет их общее культурное развитие в гуманистическом плане.

Редакционная коллегия полностью отдает себе в этом отчет, руководя журналом и принимая горячее участие в вузовских проблемах. Желание редколлегии заключается в том, чтобы быть не только эхом идущих снизу потребностей и пожеланий и приходящих извне указаний, но и создавать эти потребности, вызывать эти пожелания и пытаться формулировать эти указания в тесной связи с вузовской средой.

Для этой цели редколлегия организует встречи с вузами, чтобы ещё больше приблизиться ко всему тому, что волнует их преподавательскую среду. Это создает благоприятные условия и дружескую атмосферу для взаимного обмена мыслями. Таким образом журнал действительно становится органом содружества вузовских преподавателей, помогая в осуществлении единой цели призвания и миссии преподавателя. Этой целью является и будет выпускник высшей школы подготовленный на интеллектуальном и культурном уровне для своего общественного предназначения.

J. Legowicz

„La vida de la escuela superior" — revista del profesor académico

En el ambiente de los profesores universitarios, cada vez más, se subraya la necesidad de continuidad e intercambio de experiencias en el campo de la enseñanza y la educación. Un buen número de dichas experiencias, tanto de carácter cualitativo como cuantitativo, está preservado en más de 30 anuarios y más de 200 números de la revista que tiene el honor de ser el órgano de las escuelas superiores polacas, es decir, „La vida de la escuela superior". La revista en cuestión contiene el patrimonio relacionado con la vida de las escuelas no sólo en el campo de los logros teóricos, por si solos, sino también los logros, cuya fuerza motriz, fuente y criterio de valoración fue en gran medida la práctica profesorial. Así pues, se facilitaba la publicación en la revista de artículos escritos por los jóvenes trabajadores de la docencia académica. El Colegio de Redactores de la revista profesa gran interés y siente mucha simpatía por los debutantes. Tampoco se queda indiferente ante sus ideas meritóricas y las aspiraciones que presentan en los artículos a publicar. La revista, siendo el órgano de la enseñanza superior polaca, representa el típico y propio para el ambiente sentido de problemas y funciones del profesor académico, su preparación para las tareas que le fueron encomendadas y sus deberes, su autoridad de científico, su capacidad didáctica y los deberes morales del tutor, su personalidad humana y docente. La revista esboza también la imagen del profesor como participante y a la vez cocreador de todo lo que determina la vida de la escuela superior, su autogestión y su calidad, dependiente en gran medida de los trabajadores de la docencia. Así pues, desde el punto de vista de los objetivos y tareas a realizar, „La vida de la escuela superior" siendo el órgano de la enseñanza superior es, a la vez, revista de los profesores académicos.

Con esto, al menos en sus principios fundamentales, se vincula la estructura temática de la revista que siempre toma en consideración la vasta escala de problemas y su amplio alcance, todo esto inseparablemente relacionado con la práctica profesorial científico- investigativa, didáctica y pedagógica. La Redacción muestra gran interés por la correspondencia entre los problemas tratados en la revista y la demanda real de éstos, como también por el hecho de que los problemas en cuestión se relacionaran con los aspectos de producción de las escuelas, es decir con la enseñanza y la educación del hombre.

Tal situación explica la actitud del Colegio de Redactores, de querer atraer a cada profesor académico, hacerle coautor de la revista y participador activo en su redacción.

Junto a la joven generación de los trabajadores de la docencia académica, la revista quisiera hallar el más variado temáticamente y a la vez firme apoyo por parte de los científicos independientes y profesores, quienes asumen la mayor responsabilidad por el aspecto y el nivel de la escuela superior. Por lo tanto resultan imprescindibles aquí los vínculos tanto inter- como entre-universitarios, cuya expresión a la vez que objetivo es dotar a las generaciones venideras de algo más que la simple educación superior, y, formarlas no sólo a nivel profesional sino también cultural y humano.

Consciente de ello, el Colegio de Redactores-que dirigen y se dedican activamente a la revista- quiere ser algo más que un eco de la demanda, deseos e indicaciones recibidas de fuera. El Colegio de Redactores desea junto con todos los ambientes universitarios, crear esta demanda, provocar dichos deseos, y formular, junto con las universidades, las respectivas indicaciones.

Con este fin se organiza encuentros en todos los centros de enseñanza superior, para de esta manera acercarse aún más a todo lo que sea de interés para los profesores académicos y la escuela superior, creando así condiciones favorables y ambiente propicio para el intercambio de ideas. Todo ello encaminado a un sólo objetivo: el de hacer que la revista sea realmente el órgano de la comunidad de los profesores académicos y para ayudar en la realización de la tarea de vocación y misión del profesor, que es y será la enseñanza y la formación cultural e intelectual del graduado, para que éste llegue a poseer un nivel más alto en su destino social.

Polish Science in 1973 - 1986

by
BENON MIŚKIEWICZ

Scientific congresses are among great events in the history of science[1]. Their significance is linked both with summing up of the achievements of science and mapping out its further development. Our 3rd Congress of Polish Science is intended not only to sum up the achievements, shortcomings and needs of Polish science, but also to define the directions and forms of involving science in meeting economic, social, political and cultural needs of this country. The Congress will thus stimulate and work out such a programme of science development whose implementation will result in the acceleration of the development and contribute to a fuller satisfaction of social wants.

Science faces two basic goals: a cognitive one — to get to know the world and to declare the truth about its reality and a pragmatic one, which can be reduced to meeting social needs. Hence, the development of human life is inseparably linked with the development of scientific research and the resulting technological advance. There are also great expectations concerning the science of our socialist state. Its complex character and multiplicity of conditions show, however, that both its achievements and prospects of its development have to be considered in unison with development possibilities offered to science.

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[1] The paper was delivered at the 3rd Congress of Polish Science on the 8th of March 1986.

The purpose of the paper is to evaluate the state of Polish science between the 2nd and 3rd Congress, that is between 1973 and 1986. The task requires some kind of retrospect, which will help to come up with better balanced assessments and a broader definition of the role of science in our country.

The first period of science and higher education history in People's Poland covers the years of 1944 - 1949. It was the time when great effort was made, first of all, to rebuild the destroyed resources of science, personnel and research workshops. Scientific and educational activity at that time was carried out within organizational system developed in the prewar period. In the beginning, institutions of higher learning and science carried on following the patterns of the former liberal university.

The need to involve science and higher education in social and political transformations resulted in the fact that, beginning with the academic year of 1947 - 1948, some disciplinary elements were introduced to the universities. On 28th October 1947 a decree was brought out dealing with the organization of science and higher education[2] and providing legal basis for their operation. The decree also announced, for the first time, the aiming at the central control of science development, defined the position of scientists in mapping out science development lines and divided the research system into two co-operating sectors: higher education and ministerial institutes.

At the end of the first stage of science and higher education development in People's Poland, 56 institutions of higher education trained almost 95 thousand students and employed 7,658 scientific workers.

The period of 1949 - 1955 brought about further coupling of science with the development of the national economy and culture.

That was the time of an accelerated economic development of this country, which resulted in a rapid development of productive forces and the accompanying sociopolitical changes. It created an urgent demand for numerous, highly qualified personnel in all spheres of life in this country. The expansion of science and the strategy of its development was synchronised with economic, social and political needs of People's Poland. That was shown in the debates and resolutions of the 1st Congress of Polish Science in 1951. In that year the Polish Academy of Sciences was brought into existence, which led to the formation of the third research sector (research carried out by the Polish Academy of Sciences institutes). In 1952--1953 the Polish Academy of Sciences produced the first directives concerning planned research of crucial importance for the national economy.

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[2] Dziennik Ustaw (law gazette) of 1947, No 66, item 415.

Organizational changes were accompanied by the transformation of Polish science methodology. The Marxist theory was permeating research on an ever-larger scale. Although the introduction of the new research methodology was initially hampered by a dogmatic approach to its assumptions, the growing familiarity with dialectic and historical materialism and the departure from treating them in a doctrinaire way as well as learning how to use the materialistic theory made scientists more and more responsive to it. Dogmatic interpretation was replaced by a creative approach, more open-minded to the complexity of the surrounding world, and that was particularly evident after 1956.

In 1950 - 1955 a new organizational structure of higher education in this country was being worked out. A new type of the university takes shape which comprises theoretical and applied sciences with the exclusion of mainly practice-oriented fields. The latter were transferred to the newly established independent institutions of higher education such as medical academies, agricultural colleges (agricultural academies), economic colleges (economic academies) or physical education colleges (physical education academies). They mostly derive from university departments or from the already existing vocational institutions.

The structural changes in People's Poland required the inclusion of institutions of higher learning into the process of general ideological and political transformation of the state. It went on differently at different universities. Often it generated resistence on the part of some academic teachers, particularly those of the older generation who failed to adopt quickly enough to the changes in the state. Sometimes the resentment grew out of some forms of activity, not always convincing ones, imposed on universities or colleges. The administrative methods of controlling their work produced dissatisfaction and opposition to the new regulations.

While evaluating the years of 1949 - 1955, it must be said that, on the one hand, they saw the improvement of science operation in Poland and its inclusion into the process of meeting state needs, but, on the other hand, restrictions imposed on scientific activity by a bureaucratic system of management. It was a typical transitory period from the liberal system of conducting research to the self-government development in compliance with national needs.

Many actions of that period underlay the accomplishments of the 1960s. At that time a search for new ideas how to control science in order to match the country's socioeconomic needs was initiated. In 1963 a Committee for Science and Technology was set up as a centre for science and technology control, vested with vast authority. It was working till 1972 when it was substituted by the Ministry of Science, Higher Education and Technology. The 2nd Congress of Polish Science in 1973 approved actions aimed at the central control of science development and the division into three sectors: institutions of higher education, institutes of the Polish Academy of Sciences and ministerial institutes as the national research and development organization with some recommendations to integrate them more closely and to suit research to economic and cultural needs of the country.

Under the influence of the decisions made at the 7th and 8th plenary sessions of the Central Committee of the Polish United Workers' Party in 1970 and 1971 and the 6th Party Congress, basic changes were made in the relations between science, economy and government policy. For the first time in this country a long-range plan of scientific research was developed, which covered the so-called crucial problems of great importance for the modernization of the national economy and improvement of the standard of living as well as the development of science and national culture. The implementation of these programmes was taken up by research teams made up of representatives of colleges and universities, ministerial institutes and institutes of the Polish Academy of Sciences.

The big research and development programmes were intended not only to boost the growth of science and technological advance, but also to take them in unison and in full cycles beginning with the wording of cognitive tasks and ending with the implementation of the results.

The system of the centrally-controlled research built in the 1970s reflected aspirations and needs of scientific circles and the supreme state authorities. It was expressed in the resolution of the 6th Party Congress which reads, "...science should be one of the main factors shaping our country"[3]. The resolutions of the 2nd Congress of Polish Science took the rate of Polish economic growth as the starting point (the rate was unprecedented in the history of this country), declared the support of the scientific community for the transformations in this country and saw the need for changing science "into an instrument helping to reach our development goals and to make it a direct productive and culture-generating force"[4].

The system of centrally-controlled programmes largely met the expectations of both the state authorities and scientists. The research area was set in order, the research itself was made to concentrate on important problems, scientific efforts were matched with economic, social, political and cultural needs of the country. A real benefit to the research system was a possibility of conducting team work of an interdisciplinary character. The system also made it possible to develop and implement many Polish technologies and products currently in use. Moreover, under the central programme of research a large number of studies were made, ready for implementation, which even today are the standing offer of science for the national economy, but, unfortunately, still insufficiently used.

After the 2nd Congress there were also changes in the system of scientific research planning and financing. A uniform system of financing research institutes was introduced by combining selffinancing through the means obtained from ordered research with state subsidies. A system of piece-work financing of research was also started. And the whole system of planning, financing and accounting was also devised and implemented to meet pragmatic goals. Unfortunately, it was impossible to fully avoid bureaucratic planning and accounting procedures.

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[3] *The 6th Congress of the Polish United Workers' Party*. Warsaw 1972, p. 604.

[4] *Science in the Service of the Nation — a resolution of the 2nd Congress of Polish Science*. Warsaw 1973, p. 32.

In the 1970s self-government rights of institutions of higher learning were expanded. They could decide how to schedule scientific activity, who to send abroad, and they got more freedom in running their finance policy etc.

Nevertheless, especially at the end of that period science was also adversely affected. Among the most important negative aspects was the excessive use of imported scientific and technological know-how by the economy while ignoring the use of local, frequently valuable, solutions. This gave rise to dissatisfaction in scientific circles and negatively affected their co-operation with the national economy.

At that time there was also a slow but consistent reduction of expenditures on science, particularly in the sphere of investment and employment.

The last period of science development in Poland was opened by the year 1980 with the acute economic and sociopolitical crisis. It went hand in hand with the crisis of the state authorities criticized for the improper running of the country. The spontaneous reaction to the then shortcomings led to a big chaos in the country, a decline in respect for state authorities and the appearance of many self-styled centres of power. The crisis also hit scientific circles.

The anarchy in scientific life proved specifically harmful for independent research workers. The system of forced democracy, which manifested itself in giving chiefly students and young research workers the main say, deprived professors and assistant professors of making decisions concerning science and institutions of higher education.

The outcome was that there was a drop in scientific activity, reduction in the number of doctorates and habilitations and deterioration of the standard of teaching and education. The economic crisis also resulted in smaller outlays on science, which caused a real worsening of its operation conditions.

The imposition of the martial law was received by scientific circles with mixed feelings. However, the authorities fairly quickly provided conditions which helped to reconstruct the government and self-government in science. They also helped to resume the science tradition in Poland and discipline in classes.

Of utmost importance for the development of science were soon the resolutions of the 9th Extraordinary Congress of the Polish United Workers' Party. The accepted programme of reforms and socialist renewal gave science and technology a new position in the social, economic and political system of the country. A principle was accepted that structural transformations in society and economy and their effectiveness should be accomplished through science and scientific and technological advance. The science- and technology-oriented policy was recognized as an integral part of the nation-wide social and economic policy of effective development.

The resolutions of the 19th Plenary Session of the Central Committee of the Polish United Workers' Party confirmed this trend and emphasized the essential role of the intelligentsia in the process of political, social and economic transformations in our country and the resolutions of the 24th Plenary Session of the Central Committee of the Polish United Workers' Party stressed modernization and required transformations of the system of education and higher education.

The consistent policy of acknowledging the creative role of scientific circles and the wording of unambiguous requirements imposed by national needs as well as the civic attitude of the large majority of Polish scientists resulted in the boost in scientific research and the growth of personnel. The best confirmation of this are ambitious programmes concerning the development of science and technology in 1986 - 1990 produced with active participation of scientific circles.

It is difficult in a compact paper to elaborate more fully on the achievements of Polish science in the period under consideration. Nevertheless, it is possible to make such a try by comparing the standard of science in Poland with that the world over. Such a comparison and the assessment of real possibilities of meeting development needs of society through science make it possible to find the level of individual scientific disciplines different. There are disciplines where Polish science was close in its achievements to the level of world science. However, there are some where the gap is quite wide. The shortcomings and weak spots existing in some fields, disciplines and lines, first of all, result from the fact that the accepted programme, material and organizational assumptions did not materialize.

While giving a positive assessment of the research effects of science, it is necessary to state that the degree of their influence on the social and economic development of the country and the level of social consciousness has been incompatible with the effects obtained. The main reason for this seems to be the inadequate interest of the economy in the innovations of Polish origin and the lack of effective links between cognitive research and development programmes.

The evaluation of scientific achievements can also be reached by appraising their creators.

After the 2nd Congress of Polish Science, famous traditions of the Polish mathematical school were continued. Among the most outstanding works were those by Professor Kazimierz Kuratowski in the field of multiplicity topology and mathematical logic. Of great importance were the achievements of Professor Karol Borsuk, the world--famous specialist in topology, creator of the theory of retractors and forerunner of the shape theory. In world mathematics the well-known names are those of Professors Stanisław Gołąb (mathematical analysis) and Jacek Szarski (differential equations).

In physics there are permanent achievements of Professor Marian Danysz, the co-author of a new branch of nuclear physics — hypernuclear spectroscopy. One can talk about the Polish scientific line of research in this field.

The studies initiated by Professor Szczepan Szczeniowski on the theory of spin waves, thin magnetic layers and domain structure are now successfully developed in many Polish and foreign centres.

Professor Alexander Jabłoński, the author of the model explaining fluorescence and phosphorescence phenomena, was a founder of the Polish school of photoluminescence.

Talking about the achievements of physicists, one should not overlook the name of Professor Sylwester Kaliski, the founder of the theory of continuous ultra- and hypersound amplification in semiconductor crystals. The results of his studies in plasma physics and thermonuclear microsynthesis are also widely known.

Among representatives of Polish chemistry one should mention Professor Wiktor Kemula, the father of the Polish school of polography and Professor Tadeusz Urbański, the outstanding specialist in explosives and the organizer of the nitro compound synthesis centre.

The speciality of Polish science is also coal chemistry and technology. Professor Błażej Roga was a coauthor, among other things, of the international classification of bituminous coal and lignite and a founder of the coal sinterability determination method.

Moreover, a high standard of research on chemical engineering has to be emphasized due to the scientific school created by Professor Tadeusz Hobler.

Also Professor Włodzimierz Trzebiatowski, the initiator of the Polish scientific school in the physical chemistry of solid body and low temperature and strong magnetic field physics made an important contribution to world science. The school of physical chemistry established by Włodzimierz Trzebiatowski managed to determine the structure of numerous alloys and explain the course of many essential chemical processes.

Talking about technical sciences, it is necessary to mention Professor Witold Nowacki, the prominent science organizer and founder of the world-famous school in elasticity and thermoelasticity.

The Polish scientific school in plasticity was set up by Professor Wacław Olszak, the author of the theory of plastic phenomena in heterogeneous media. He started the now widely expanded research on prestressed constructions, a basis of modern building and construction.

In telecommunication and electronics Professor Janusz Groszkowski had great accomplishments. He also developed high vacuum technology.

There are also well-known achievements by Professor Marian Książkiewicz, who studied the Carpathian Mountains and cofounded the Polish sedimentation school. Professor Stanisław Pawłowski created new prospecting geophysical methods. Periglacial and glacial studies became a speciality in Polish earth sciences. In conjunction with periglaciology and glaciology, there was set up in Poland a prominent school of Quaternary research and a prominent name in this field is that of Stefan Zbigniew Różycki.

Professor Mieczysław Klimaszewski made a real success in geomorphology. He advanced a new theory on the geomorphology of the Tatra Mountains and produced his own original method of geomorphological carthography.

Polish biology has played a significant role in world science. Among the leading scientists is Professor Roman Kozłowski who, in palaeozoology, established the original Polish school of research on graptolites and palaeozoology of invertebrates. In biological research, the Cracow school headed by Professor Zygmunt Grodziński made an important contribution working on the anatomy and physiology of the circulatory system and embriology. The group under Professor Henryk Szarski got excellent results in the comparative anatomy of vertebrates and evolutionary biology.

A separate place in biology is held by the Polish ecological school founded by Professor Kazimierz Petrusewicz. It developed new cognitive methods and applied them to the integrated studies of the environment with significant results.

In agricultural and forest sciences there are distinguished research findings of the well-known plant physiologist Professor Stefan Barbacki.

In horticulture Professors Szczepan Pieniążek and Emil Chroboczek and their followers achieved valuable results in the research on heterosis and the growing of new varieties of vegetables and fruits.

The world-renowned scientist and specialist in dendrometry Professor Jerzy Grochowski made a notable contribution to the development of research on the stand.

Moving to medical sciences, one should name such world-famous surgeons and orthopedists as Professors Wiktor **Dega** and Adam **Gruca**. Professor Dega, the pioneer and founder of the Polish limb rehabilitation school is also the originator of the new treatment and operation methods. Professor Gruca was the author of some original operation methods as well as orthopedic instruments and equipment.

Professor Hugon **Kowarzyk**, the renowned pathophysiologist, father of the Polish school of blood coagulation and pioneer in computer methods application in medicine also made a significant contribution to the development of medicine.

Professor Tadeusz **Kotarbiński** was a creator of a philosophical concept called reism (or concretism), which originated from the materialistic and nominalistic philosophy traditions. He substantially developed independent ethics, but primarily he is known as the father of contemporary praxiology.

Professor Henryk **Łowmiański** became famous as the reconstructor of the earlier times of the Slavic states and Lithuanian society. His contribution to history is also multi-sided studies of the origin and development of the Polish state and refined historical research methods.

Professor Maria **Ossowska** started and developed research in the borderland between sociology and the theory of morality. Her writings laid the foundation of the science of morality.

Research findings by Professor Józef **Chałasiński** in the sociology of culture, nation and education as well as the transformation of the Polish rural areas are also notable.

In the list of great achievements of the Polish humanistic sciences there is also the name of Professor Bogdan **Suchodolski** with his works in the sociology of culture and modern philosophy of man.

In jurisprudence, Professor Stanisław **Batawia's** contribution to criminology and forensic psychiatry is of outstanding quality.

Among the most renowned Indoeuropean scientists was Professor Jerzy **Kuryłowicz**, the creator of fundamental linguistic laws. He advanced the theory of the Indoeuropean accent and developed the theory of sylables and phonemes (sound elements of language).

Professor Witold **Doroszewski** made a tremendous contribution to the development of linguistics. His writings on the Polish language, dialectology, word formation and semantics helped to make the Polish language more familiar and to improve its usage. Of particular value for national culture is the 11-volume dictionary of the Polish language produced under his supervision.

Between the 2nd and 3rd Congress of Polish Science there was also work going on to expand the scientific and educational potential. It is evident through the development of institutions of higher learning: 88 in 1973 and 92 in 1985 (excluding institutions of higher education of the Ministry of Defense and the Ministry of Internal Affairs) as well as research institutes of the Polish Academy of Sciences and units of ministerial scientific back-up facilities. In 1973 there were 55 research units in the Polish Academy of Sciences and 73 in 1985. There were 112 and 125 ministerial institutes respectively and 105 and 121 R & D centres.

Along with the development of scientific institutes there was also the development of scientific workers, engineers and technical staff in the institutions of higher education and scientific institutes. The most striking figures are the following: in 1973 more than 51 thousand scientific workers were employed, whereas in 1984 — almost 66 thousand.

The numerical development of institutions of higher education and R&D units of the Polish Academy of Sciences and ministerial back-up facilities as well as the development of scientific workers were accompanied by an increase in the standard of material conditions of science. The increase was most intensive in the first half of the 1970s, which could be called "happy days of the development of Polish science". Many scientific centres were supplied with modern research equipment, more libraries were added, more books and scientific works were published. This can be illustrated, for example, by an increase in the value of fixed assets and scientific equipment. In the institutions of higher learning under the Ministry of Science, Higher Education and Technology the value of the fixed assets rose from 7.5 thousand million zlotys in 1973 to more than 37 thousand million zlotys in 1978. The value of the scientific equipment went up from more than 2 thousand million zlotys to almost 15 thousand million zlotys respectively.

The development of the material base of the period is also reflected in the expansion of research laboratories. Out of the total of 23, as many as 21 were established in 1972 - 1974. Most of the expensive equipment, that is 54.5 percent, for these laboratories was purchased in 1973 - 1977. As the expenditures on science decreased in the years that followed, most of the equipment is still used. It calls for replacement or modernization, and that requires new outlays.

The economic breakdown of the country and the crisis of the early 1980s had an adverse effect on the whole area of science. Outlays on science were restricted, the number of workers decreased, investments went down, less equipment was bought, fewer foreign publications were imported. It should be stressed, however, that the reform and socialist renewal programme adopted at the 9th Congress of the Polish United Workers' Party, which assigned science a specific position in the socioeconomic development of the country, has consistently been implemented. This can be supported by the inclusion into the draft for the National Social and Economic Plan for 1986 - 1990 110 Central Programmes of Basic Research, 113 Central R&D Programmes and 243 Government Orders in the field of science and technology. Moreover, Ministerial Programmes of Basic Research and Ministerial R&D Programmes will be started and in the institutions of higher education University Research Programmes are in the designing stage. Scientists actively participated in working out these programmes. Also the activity to synchronize these programmes with the national socioeconomic development plans merits special attention. One would expect euqal involvement of scientific circles in their full implementation.

At the end of 1984 new bodies co-ordinating scientific and technological activity were established: The Committee for Science and Technological Advance affiliated to the Council of Ministers and The Office of Scientific and Technological Advance and Implementations. They took over part of prerogatives of the Ministry of Science, Higher Education and Technology and hence the latter is now called the Ministry of Science and Higher Education.

In the final part of the attempt to assess the development of Polish science from the 2nd Congress till today, let us have a look at the degree of the implementation of its resolutions or their prospects.

To begin with, the 2nd Congress of Polish Science was held in the atmosphere of spontaneously growing optimism concerning the development prospects of this country. Science was acknowledged as a productive and culture-generating force of the ever-growing importance for the development of Polish society. The outlines of the long-term plan of the social and economic development of Poland till 1990 worked out at that time assumed intensive and far-going transformations. The 2nd Congress suggested to rest the effectiveness of the planned actions on the substantially increased use of new scientific achievements. This was expressed in the message from the Congress: "Science in the Service of the Nation". The slogan is still true.

The Congress stipulated an increase in expenditures on the R&D activity from the national budget from 2.5 percent in 1975 to at least 4 percent in 1990. It was predicted that the total employment in the research and development area and in higher education will go up fourfold till 1990. They demanded to have the rate of investment outlays, including foreign exchange, on science and development exceed the industrial investment dynamics.

Among other prerequisites of the proper implementation of tasks facing science, the Congress saw indispensable modernization and replacement of research equipment as well as improvement of supply with materials, reagents and foreign scientific publications. However, the economic slump in the second half of the 1970s slowed down the implementation process.

Equally positive changes for science were taking place in the years following the Congress in the area of scientific information flow and access to foreign scientific writings. For many years expenditures on science were on the increase and so was the number of its workers and students.

Many other propositions made by the Congress were also successfully put into shape. A relatively functional system of the central control of scientific development was established. The idea of science being in the service of society struck roots. The practice-oriented research was in full bloom. And big research teams that attack problems in an integrated and interdisciplinary way have proved to be a permanent achievement of the 2nd Congress of Polish Science.

Among the successfuly realized claims was also the system of domestic and foreign fellowships, which excellently improved scientific workers' skills.

However, the suggestions to form special technical and economic services that would demonstrate national economy demands to science and put into practical use research findings has not materialized yet. It is still waiting for its better days.

Also there has been no progress in the development of the domestic production capabilities concerning scientific, research and teaching equipment. The intended network of experimental establishments and branch laboratories failed to expand, to die out almost completely following the economic crisis. Its restoration is a prerequisite of further research activity and the improvement of teaching.

With the economic depression, it also proved impossible to put into effect the proposition to increase the number of publications in due proportion to the quantitative and qualitative growth of research and scientific workers. It was also not feasible to put into practice the increase in publications in foreign languages and to import foreign literature and periodicals as well as to modernize and develop printing establishments. Now efforts are being made to correct the situation, but the success rests with the economic possibilities of the country.

Many propositions of the 2nd Congress of Polish Science refer to the still unsolved problems such as:

a) further improvement and search for modern forms and methods of training that would meet the needs of the developing economy;

b) the need to develop scientific criticism, the atmosphere of respect for true values, competence and real achievements;

c) the refinement of the system of education and the operation of scientific institutes that can influence the growth of scientific and technological culture of our society;

d) the development of the network of scientific documentation and information for individual disciplines;

e) the need to shorten the time between the termination of research and the practical application of its findings;

f) the development of co-operation with foreign countries, especially with the Soviet Union and other socialist countries;

g) the improvement of the publishing activity including the development of scientific periodicals and their standard as well as an increase in the import and export of publications;

h) the refinement of the planning and financing of the scientific and research activity.

So the achievements of the 2nd Congress of Polish Science are still largely a base for working out development programmes of Polish science and determining its creative tasks.

While evaluating the development of science between the 2nd and 3rd Congress of Polish Science, one should say that the temporary difficulties in the late 1970s and the 1980s should not overshadow many important accomplishments. The effects of scientific works helped both science and Polish society. In short, the period under consideration was teeming with great achievements and also faced the development crisis resulting from the general economic, social and political situation of this country. The restoration is feasible, provided the scientific circles develop trust in the newly offered chances and conditions to accelerate the development of science and general economic and cultural progress of our state.

One should believe that the 3rd Congress of Polish Science will become a source of integration of all scientific circles and will be conducive to the development of scientific creativity. Let us hope that it will strengthen the idea of science being in the service of society and the Polish socialist state.

Б. МИСЬКЕВИЧ

Польская наука в 1973 - 1986 годах

Важное значение научных конгрессов сочетается как с подведением итогов достижений науки, так и с определением направлений её дальнейшего развития. III Конгресс Польской Науки позволил подвести итоги существующим до сих пор достижениям, оценить состояние польской науки и реализацию задач поставленных на II Конгрессе Польской Науки и связанных с развитием науки.

Первый период развития науки в Народной Польше связан с ускоренным восстановлением уничтоженного, вследствие военных действии, научного потенциала, организационная система которого была сформирована в двадцатилетии между первой и второй мировыми войнами. Хозяйственное развитие страны и связанные с ним общественно-политические перемены вызвали срочную потребность в движении вперед польской науки и совершении в ней структуральных изменений. Эти факты нашли своё отражение в постановлениях I Конгресса Польской Науки, который происходил в 1951 году.

II Конгресс Польской Науки положительно оценил направленные на центральное управление действия и наметил весьма смелую программу ускорения развития науки. Принципиальные изменения в отношениях между наукой, экономикой и политикой нашли своё отражение в создании системы исследований координированных центральным образом. Была осуществлена концентрация научно-исследовательской деятельности на важных проблемах связанных с экономическими, общественно-политическими и культурными потребностями страны. Были также проведены изменения в сыстеме планирования и финансирования научных исследований и введено предметное финансирование исследовательских работ.

Последний период оценки состояния науки в Польше начинается в 1980 году, когда с большой силой и остротой проявился экономический и общественно-политический кризис. Наступило понижение научной активности, уменьшились затраты на науку, что привело к существенному ухудшению условий её функционирования. В решениях

IX Чрезвычайного Сьезда ПОРП (1981 г.) намечающих программу реформ и социалистического возрождения, научно-техническая политика была признана интегральной частью политики эффективного развития страны. Последовательное проведение в жизнь этих решений и активная политика по отношению к научной среде стали причиной прогрессирующей оживлённости научных исследований и развития кадров во всех отраслях науки.

При активном участии научной среды были разработаны смелые программы развития науки и техники на 1986 - 1990 годы. Была запланирована реализация 223 центральных исследовательских программ и 243 правительственных заказов из области науки и техники. Кроме того будут выполнены ведомственные и вузовские программы исследований.

В 1973 - 1986 годах было совершено расширение потенциала науки и высшего образования. В 1973 г. было 88 вузов, а в 1985 г. — 92 вуза. В Польской Академии Наук существовало в 1973 г. 55 исследовательских учреждений, а в 1985 г. их было 73. Ведомственных институтов и исследовательских центров было соответственно 217 и 246. Развитие научных учреждений сопровождалось развитием научных кадров: с 51 тысячи научных работников принятых на работу в 1973 году до почти 66 тысячи в 1984 году.

Оценивая развитие науки в 1973 - 1986 годах, т.е. между II и III Конгрессами Польской Науки, надлежит констатировать, что этот период изобиловал крупными достижениями в польской науке и технике. Однако одновременно наметился некоторий перелом в развитии, который возник в результате разнородности экономической и общественно-политической ситуации государства в то время.

B. Miśkiewicz

La ciencia polaca en los años 1973 - 1986

La importancia primordial de los congresos científicos se relaciona tanto con la presentación de los logros de la ciencia, como también con la determinación del rumbo de

su desarrollo posterior. El III Congreso de la Ciencia Polaca permitió la realización de la balanza de logros, la valoración del estado de la ciencia polaca y la estimación de la realización de tareas concernientes al desarrollo de la ciencia, postuladas en el II Congreso de la Ciencia Polaca celebrado en 1973.

La primera etapa del desarrollo de la ciencia en la Polonia Popular se vincula con la reconstrucción acelerada del potencial científico, destruído por la guerra, según el modelo del sistema de organización elaborado en el período de los veinte años que transcurrieron entre las dos guerras mundiales. El desarrollo económico del país y los relacionados con éste cambios sociopolíticos causaron la urgente demanda de propagación y realización de transformaciones estructurales en la ciencia polaca. Dichos hechos hallaron reflejo en los acuerdos del I Congreso de la Ciencia Polaca, que tuvo lugar en 1951.

El II Congreso de la Ciencia Polaca valoró positivamente la actividad encaminada a la centralización de la ciencia y esbozó un programa audaz de aceleración de ésta. Los principales cambios de relaciones entre la ciencia, la economía y la política se reflejaron en la creación del sistema de investigaciones centralmente coordinadas. Fue lograda la concentración de la actividad científico-investigativa en importantes problemas relacionados con las necesidades económicas, socio-políticas y culturales del país. También fueron efectuados los cambios concernientes al sistema de planificación y financiamiento de las investigaciones científicas, siendo los trabajos de investigación financiados por las ramas de la economía interesadas.

El año 1980, cuando surge en el país la aguda crisis económica y socio-política, inicia la última etapa de valoración del estado de la ciencia en Polonia. En aquel período tuvo lugar el descenso de la actividad científica, fueron disminuidas las inversiones en la ciencia, lo que provoco el visible empeoramiento de las condiciones de su funcionamiento. Los acuerdos tomados por el IX Excepcional Congreso del POUP (1981), que determinan el programa de reformas y restauración socialista, consideran la política científico — técnica parte íntegra de la política del desarrollo efectivo del país. La consecuente puesta en la práctica de dichos acuerdos, como también la política activa

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ante los ambientes científicos causaron la sucesiva vivificación de investigaciones científicas y el desarrollo del profesorado en todas las ramas de la ciencia.

Fueron elaborados, con la activa participación del ambiente científico, programas ambiciosos del desarrollo de la ciencia y la técnica par los años 1986 - 1990. Se espera la realización de 223 programas centrales de investigación y 243 pedidos gubernamentales concernientes a la ciencia y la técnica. Además la distintas ramas de la economía y las universidades realizarán sus propios programas de investigación.

En los años 1973 - 1986 fue considerablemente ampliado el potencial de la ciencia y la enseñanza superior. En 1973 hubo 88 y en el año 1986 ya existían 92 centros de enseñanza superior. En la Academia Polaca de Ciencias existían en 1973, 55 centros de investigación, mientras que en 1985 — ya eran 73. En lo que se refiere a Institutos especializados y centros de investigación y desarrollo, funcionaban respectivamente 217 y 246. El desarrollo de los centros científicos estaba acompañado del aumento del número de trabajadores científicos y docentes: de los 51 mil científicos y trabajadores de la docencia empleados en 1973 a alrededor de 66 mil, empleados en 1984.

Al evaluar el desarrollo de la ciencia en los años 1973 - - 1986, es decir entre el II y el III Congreso de la Ciencia Polaca, hay que señalar que dicho período abundaba en grandes logros de la ciencia y la técnica polacas, a la vez que se pudo percibir paralelamente cierto declive en su desarrollo, debido a la diversificada situación económica y socio-política del país en aquel tiempo.

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Życie Szkoły Wyższej 1986

The Humanism of the Contemporary University — the Contribution to the Establishment of a New Cultural Order

by

BOGDAN SUCHODOLSKI

1. The New Economic Order and the New Cultural Order. The establishment of a new economic order in the world is not merely a matter of international commercial agreements and organizational efficiency. Planning and implementation of the new economic order in world are deeply rooted in the integrational and disintegrational processes of various cultures specific for particular continents, in the social changes ocurring in different countries, which bear resemblances to as well as vary from one another. They are also implanted in the processes of transformation of general world view which create both stable and variable criteria of evaluating human behaviour and concepts of the value of life. As Karl Marx rightly stated in his polemic with Adam Smith — economy is in fact the expression of man's philosophy, and a basic factor in promulgating and consolidating the accepted assumptions.

These interrelations give rise to the complicated problems of the new cultural order which at the same time conditions the new economic order to a large extent. There are three aspects of that matter calling for particular consideration, i.e., production, consumption, and distribution of goods.

Production is to a high degree dependent on the adequate training of specialists and skilled labourers. That is one (though certainly not the only one) of its most important determinants. The proper training of the future managers and employees, however, is not merely a question of covering a certain amount of knowledge and developing necessary skills. It consists also in cultivating the ability to participate in the advancement of science and technology as well as to organize one's life in such a way as to meet the requirements of modern industrial civilization. Obviously, it is much easier to obtain good results in the first field than in the latter. The effects of vocational training in the developing countries are often insufficient, even though the necessary facts have been taught and the adequate manual skills developed; yet this "vocational education" has not been accepted in the social environment nor has it affected the personal style of life determined by the existing tradition and patterns of behaviour. To accept this new style would, in fact, mean choosing a different kind of existence from the one accepted so far, whose values are still morally binding. It would mean a betrayal of tradition and proclaiming oneself in favour of a new model of life which might — instead of perpetuating man's development — bring constraint and disorganization. Although it has been more or less generally recognized nowadays that human beings should not be treated merely as "manpower", still man is often conceived of as a "producer". But even assuming that the alienation of labour has totally been eliminated — and that is a very far-fetched assumption — would man's productive activity constitute full expression of his humanity?

African and Asian countries where the reservations against the above concept have always been most pronounced, used to be looked upon with certain superiority by the representatives of Euro-American industrial civilization.

An accepted model in that civilization was a man of action, working methodically and energetically, orderly in his everyday behaviour, aware that time is money, and money is power. But was that right to conceive of human life only as a hard effort at manufacturing goods and at continuous climbing up the ladder of success? It is just to dissiminate such concept of life the world over, or perhaps the new economic order should be based on other assumptions as well as on different principles of the philosophy of life and of a concept of man?

As regards consumption, its character should be decided by the programme of the new economic order. The problem is extremely complicated. Development of the European capitalism had been closely connected with puritan mentality which restrained the search for enjoyment and pleasure in life. Individual economic success was to enable further increase of investment, while the way of life was to remain modest and economical, even ascetic. These restrictions, however, although still present in the early 19th century, lost their importance in later periods. In the mid--20th century quite the opposite manner of life became generally accepted: puritan ascetism gave way to enjoyment of the pleasures of wordly life and using one's material resources for that purpose. The way of life promoted by the rich became a very attractive model in the welfare society. Consumption of material goods became more and more important measure of the social prestige, distinguishing indviduals and allowing them to assume an enviable and desirable position in society. The level and possibilities of consumption became — more and more frequently — a basic criterion of success. Professional rank and accomplishments or creative achievements were of less importance than the high material standard. Under these circumstances a border line between the rational consumption — subject to life and its advancement, and irrational consumption — being an unnecessary individual and social waste, became obliterated. The replacement of the traditional concept of man as producer by the new consumption-oriented model — instead of freeing man from the slavery of material objects, made this subjection even more pronounced, changing its character. Youth protest movements rightly exposed the inhuman character of the consumers' society in which man made a market for goods and services prepared for his pleasure and shallow entertainment.

Such conception of consumption cannot form a basis for a new economic order in the world. That new order can only be founded on the rationally understood consumption as a means to satisfy the justified human needs. Jan Tinbergen defines it in the following way: "the paramount goal of the world's society is to ensure to all people the life of self-respect and walfare". This definition, which implies a great programme for social renewal, stands in opposition to the widespread concept of consumption as unlimited and egoistic craving for pleasure.

It has been pointed out in several studies that the persistence of such understanding of consumption is one of the reasons for the increasing disorder in our world, and for the growing conflicts between those who have too much and those who do not have enough; between people living in countries of surfeit and waste, and those experiencing poverty and famine. However, it is an extremely difficult task to eradicate from the social consciousness such a concept of consumption as it is a powerful driving force for the privileged groups and individuals. It requires a true acceptance of the programme for universal justice and solidarity. Such acceptance may be based either on the moral principles of altruism and community spirit or on the pragmatic realization that all other ways lead to destruction. It has been correctly said that "although the idea of brotherhood is not new, its singular importance nowadays lies in that it is a vital condition of the preservation of mankind". From this point of view, however, more sceptically, R. Dumont has defined a modern alternative faced by our world as an alternative of "utopia or death". John F. Kennedy expressed it yet in other words, saying that "if the free society is not able to save the many poor it also cannot save the few rich".

Thus the problems of consumption do not concern only material products but are ultimately moral and cultural problems as it is necessary to distinguish between the rational and irrational consumption, justified and wasteful, selfish and subject to the universal interests of humanity.

Thus we have come to the third sphere of the interrelated economic and cultural elements of the new order, i.e., the distribution of goods. We can no longer accept the principle of classical liberalism that neither the state nor any social institutions should intervene in the process of distribution which is being formed by the success of the strong and failure of the weak. We shall advocate such control over those processes which aims at ensuring everyone just access to everything. The range and methods of this intervention may be interpreted in variety of ways. However, there is no need to discuss here those differences. For our purposes it is important to stress that one essential principle common to many social programmes; it exceeds the limitations of economic calculation and expresses universal moral beliefs concerning human relations in the realities of life.

In *A Report to the Club of Rome — Reshaping the International Order* (1976) Jan Tinbergen defined the programme of a just social-economic order, pointing out that it should aim at the realization and compliance with the six essential postulates, i.e.: equality as an expression of the equal value of all human beings, which calls for the abolition of all discrimination; freedom guaranteed to all individuals and social groups within limits which would not infringe the freedom of others; democracy and partnership as a way of ruling the society; solidarity, which calls for the establishment of the uniform front in the struggle for realization of a just social program; preservation of local and regional cultural differences; inviolability and preservation of environment. The above programme shows how closely the economic order of the world is connected with the new order in the sphere of culture, general world view, orientation in life.

This new order is not easy to define. Its principles may be differently interpreted and those differences lead to various strategic directives. Is the programme of the world's renewal to be realized by way of evolution, or by revolutionary methods? Is the future shape of society to be determined by the state or expressed through the local social initiatives? Will the leading ideology be that of social democrats or that of communists? Should it assume laic and humanistic character or turn to religion as is implied in the catholic programme for evangelization of the world or in the even more politically-oriented ideology of Islam? Do African countries — or at least some of them — contribute any new elements to that strategy? Will the new Chinese programme — having abolished the principles of the so-called cultural revolution — bring forth any conceptions of social activity unknown thus far? To what extent will the experience of Latin-American peoples become significant? What will be the vision of the new social order contributed by India — a country whose culture has been so important to our world?

All those questions show the wide range of possibilities offered by modern ideologies. The inherent contradictions prove that the new economic order cannot be planned, let alone implemented successfully without international agreement — on the world scale — in the field of culture and concept of life. What could be the character of such an agreement and what factors would promote or deter its realization?

2. *Conducive and Deterrent Factor in the Establishing of a New Cultural Order.* For centuries the development of mankind had been taking place within mutually isolated cultures. Although certain penetration of ideas — often accompanied by violent controversies — did occur, bearing significance for particular geographical regions, yet these phenomena were neither deep nor long-lasting. They usually concerned only the spheres of intellectual activity (e.g., Arabic science and philosophy of the Middle Ages), and art, especially painting and music of recent times. Even through the historians of art may highly value the influence of African, Asian and Polynesian art on the development of modern European art, yet this influence has been limited to artistic circles.

As regards social life, the situation was different. European culture had a powerfully expensive character. This expansion led in two directions: dissemination of Christianity through the missionary activity, and prolongation of the modern industrial civilization through science and technology. The effects had been controversial. Jomo Kenyatta commented once rather bitterly on the first aspect of that European interference: "when the white man appeared in Africa, he had the Bible and we ruled our land. And now? We have the Bible, and he took over our land". It was a sharp criticism of the role of missionaries: Christianity was gaining followers, but it did not give the African people opportunity to live and develop in their own countries, which became an area of colonial exploitation.

In case of science and technology, other difficulties emerged. Although the adoption of Euro-American science and technology by peoples of Africa and Asia allowed sometimes — as in Japan — to establish powerful economic systems, yet the phenomenon was by no means a frequent one. On the other hand, the expansion of science and technology was followed by propagation of a new style of life, typical of the developed societies of Europe and North America, which, however, stood in sharp contradiction to local traditions and customs.

Japan has managed to a certain extent to preserve its own distinct culture in spite of the adoption of Euro-American science and technology; India also follows the same route.

In Africa the situation is far less simple. The influence of the Western science and technology threatens the continuity of culture of nations and tribes; it provokes sharp internal conflicts in those communities between the majority of population and small groups of the privileged elite alienated by the process of europeization and americanization. The reaction against such situation is twofold. On the one hand, there are defenders of the traditional native culture, trying to find in it some universal values. Others criticize this traditional and emotional programme with its missionary implications and oppose the Western influences from the Marxist point of view, i.e. try to separate the stable and valuable elements of those influences (modern science and technology) from those expressing the system of class division and upper class model of life.

All those experiences prove that establishing of a new cultural order in the world is a most complicated task. While analyzing this question it is necessary to distinguish a few different spheres of activity.

The first problems worthy of consideration is the role of science and technology in the modern world. Nothing can deter their progress, and the number of people who contribute to this development in various countries will be constantly increasing. Science and technology are doubtlessly a common language of modern civilization, an essential element of its integration round the same problems of cognizance and social activity. The advancement of science and technology, though of varied intensity in different countries, has become a generally accepted value.

On the other hand, the development of science and technology does not occur in isolation from the actual social and political conditions, which affect its direction and use in variety of ways. It has already been realized that the effects of the development of science and technology on our civilization are not solely beneficial. We are aware that — first of all — we must prevent the danger of science and technology being used against the vital interests of humanity, and secondly, we must control its progress in such a way as to reduce and eliminate its unfavourable consequences.

Both aspects of this programme are extremely difficult to implement due to varied, frequently antagonistic ideas of the social goals and values, usually inspired by different interests of great international syndicates and competing states. Therefore, even though science and technology may be a universal language of the world, what is being said in that language is quite another matter.

The establishing of a new cultural order in the world should therefore include agreements concerning social control over the advancement of science and technology. The perspective tasks in that field have been well formulated by the Centre for the Study of Developing Societies (Delhi, India):

The Western concept of science as a tool to "master nature and the social order has led to a host of evils.

Technology, put to the service of industrial expansion, has become the purveyor of neo-colonialism.

Third World societies penetrated by technologically sophisticated transnational industries suffer exploitation of their peoples, erosion of their cultures and a ravaging of their resources — while profits from such enterprises are shared by the encroaching power and an emerging class of powerful, privileged and oppressive local élites.

Western technological societies, victims of both stress and environmental pollution, exhibit social, psychological and physical pathologies in their alarming rise in criminality, mental illness, heart disease and cancer.

Military technologies, with their escalating absorption of capital, built in obsolescence, and lack of social utility, produce unemployment, deplete resources, increase political repression and threaten human survival.

It is necessary to search for alternative perspectives on science and technology which will redirect their use to the betterment of human condition and preservation of man's natural heritage".

Another sphere of activity toward the new cultural order concerns the style of life, which differs to a high degree in various parts of the world. Cultural heritage and the living standard affect in various ways the style of life adopted by the masses. Euro-American civilization promotes a luxurious and consumption-oriented way of life which is immensely attractive both for the lower (i.e. poorer) classes in the developed countries and for the élite in the developing countries. In both cases this style of life results in social dissociation, in conflicts between different social strata, in the struggle between defenders of the cultural tradition and privileged groups that have repudiated that tradition.

At the same time, the Euro-American civilization promotes active kind of life, mobilizing to constant effort in climbing the ladder of success, the latter consisting in gaining more money, more importance, more publicity, more power, etc. Such model of life is not highly appreciated in certain other countries. An American tourist in India, seeing an Indian resting in the shadow of his rickshaw, asked him why he was not working. "Why should I work?", was the answer. "I have no wife and I have already eaten my everyday rice". At a higher level of needs and aspirations such attitude finds expression in meditation and contemplation, in living close to nature, to art, to one's friends. Johan Galtung calls it a horizontal style in opposition to the vertical style which dominates in modern Euro-American civilization.

What are the chances of reconcilling these two attitudes? Is there a possibility to restrain aspiration that lead to excessive consumption, and instead create an atmosphere favourable to modest ways of living, accessible to all the members of a particular community and in more distant future to the whole mankind? In other words, is it possible to limit the preferences for the vertical attitude and develop appreciation toward the horizontal style? Those are the questions directed towards the Euro-American civilization. In case of opposite civilization, we should pose a question whether they are able to prevent the danger of stagnation, laziness and passivity that may arise from the "horizontal" attitude.

Although finding balance between those different styles of life is most difficult, yet all the possible efforts should be made in this field, because as long as the sharp contradiction between them does persists, the establishment of a universal cultural order will be impossible.

The above-discussed problems have brought us to the third sphere of activity concerning a new cultural order in the world, that is to the question of the sense and value of life, the problem of man and his destiny. It could have appeared for a time that the civilization of science and technology, concerned mainly with practical and utilitarian aspects of life, pushed these "ultimate" questions far into background. Indeed, they seemed absent from the "everyday rush". However, they did not disappear from human consciousness and especially subconsciousness. Nowadays we can observe considerable increase of emotional and intellectual needs. They are manifested in the growing activation of religious attitudes within Christian church and in various religious sects as well as in variety of mystical and therapeutic practices.

At the same time one can notice a strong social and political activation of Islam which is assuming an overall leadership over its followers in the modern world. The development of the situation in Iran, which was to became a modern, industrial capitalist state and instead became an Islamic republic, is a significant example of the importance of metaphysical aspect of human life.

The above-mentioned processes create especially difficult problems for the European consciousness which for a few centuries has been formed in growing confidence in the laic philosophy and science. It has been considered a hallmark of modern mind to profess a laic view of the world, to recognize scientific facts as guiding principles, to accept humanistic ideas as the historic output of mankind that should be binding throughout generations. We like to call the present times an era of revolution of science and technology, an epoch of universal education; if we than realize that along with scientific and laic elements we are faced with just the opposite forces which, moreover, frequently gain leadership of minds and attitudes — it becomes clear that the question of a new cultural order is far from easy.

Science has always been our Euro-American contribution to the progress of mankind. However, as science cannot answer all the questions concerning human destiny, it must withdraw from the front line and leave open space for the great dispute between various metaphysical and religious systems of our world. There is no chance for any one system to win that dispute. There is a possibility, however, that it take form of a continous dialogue instead of struggle, and that it occur in an atmosphere of tolerance instead of inducing growing fanaticism.

3. Vocational training should not remain the only task of universities. The establishment of a new cultural order is a difficult and complicated task. It requires a manifold and diversified strategy as well as cooperation of various institutions and organizations.

Whether the European universities can contribute to the fulfilment of this task will depend on their essential character. The duality of function performed by universities is of particular importance in this respect. On the one hand, they are to prepare well-trained specialists for the national economy, on the other — they constitute centres of general culture of higher level.

The problems of the present and future culture in its broadest sense are becoming more and more important and interesting for a growing number of people. They involve a wide range of subjects: from philosophy to art, from natural sciences to social and political issues, from technology to architecture. They are becoming increasingly important not only from a purely informative point of view, but also as an expression of need understand the reality within which man lives and which he creates himself.

It may be expected that all those interests will still develop in the future. People will have more free time, it will require less effort to achieve satisfactory living standard. The conditions of growing affluence will be favourable for developing cultural interests. This, however, would call for the appropriate stimulation, for better organization of life. That is the sphere in which the future way of life in the welfare civilization will be decided; the question is whether it is going to be life of superficial comfort, shallow entertainment and passive acceptance of the so-called mass culture — or that of creative endeavour and true interest in culture conceived as a kingdom of all values and a manifold result of human activity.

Obviously, the processes of cultural participation are of natural and spontaneous character, they develop in the course of the life itself, in specific conditions of the access to cultural values. These values, however, do not emerge from the direct realities of life; they are partly an element of historical heritage, partly originate from some remote countries, and partly they are formed in specialized intellectual and creative centres. For all these reasons, participation in culture becomes a complex and difficult process, requiring certain training. Cultural life has always constituted a specific superstructure over the natural human life. Nowadays, however, culture has become a phenomenon even more complex and remote from the practical reality than it had been in earlier times, when it found expression in myths, rituals and public manifestations, much more accessible and clearly understood by every member of society.

Unless modern civilization is to lead us to the wilderness of the "consumers' society", it must create such conditions where culture would become an element of average man's reality, his everyday environment, an area of his personal needs and their realization. What should be done — and what can be done in order to enrich human life, to develop and satisfy man's non-material needs?

Modern man has to undergo specialized training before he can perform his job which he would not be able to learn by mere imitation. In the same way he must be trained to participate in culture.

That specific "training" is brought about first of all through the so-called parallel education, that is education in the socio-cultural environment, through literature, theatre, film, press, radio and television; through spontaneous artistic activity; through self-improvement.

Another important sphere of educational activity is continuous education. The school education becomes then only one element of the whole educational process, but it is an element of extreme importance.

In that system of cultural education an increasingly important role is played by educational institutions of a higher level. To introduce people into modern culture means not only to supply them with basic tools for its reception. First and foremost it means introducing them into its essential problems, often of a complex and difficult nature. Elementary or even secondary school education is not sufficient for that purpose. What is needed is university education.

And that is exactly where the complications arise. From the point of view of cultural education, a characteristic inner antynomy can be observed in the schooling system in our country. It is a contradiction between the principle of the universality of education and the principle of selection limiting this universality. According to our educational policy, everybody ought to be educated up to a certain age and a certain level, and at the same time much importance is being attached to limiting the possibilities above that age.

This very principle gives rise to serious doubts. Universal character of the lower levels of education is being justified by cultural considerations, i.e., that the whole society should achieve certain level of general education. Selection at the higher level is explained by the requirements of the national economy. Thus the educational system is based on two principles which instead of complementing — contradict each other.

From the point of view of culture it would be most desirable if everyone could, and wanted to, obtain a possibly highest level of education. From the standpoint of the national economy it is important that not everyone be able to reach higher levels of the educationl system. National econmy has limited demands for the highly-qualified specialists and must to a large extent depend on the people with secondary and elementary qualifications. From this point of view it is also important that only a certain group of people should want to obtain higher education while others should have limited aspirations in this respect.

Higher education — including universities — has thus become a system of specialized vocational training with limited capacity. On the other hand, studies in the institutions of higher education remain the only possibility to attain a higher level of general culture. Even if the stress is laid on technical subjects, theoretical part of the studies is conducive to the development of general cultural level. Living in a big city or an university town with its cultural institutions, participation in various youth organizations and social activitiess constitute additional factors in the general intellectual development of a young man.

This dependence of the cultural education on the requirements of economy appears to be unjust. It would seem much more favourable a situation in which all the young people — regardless of the level of their professional training — could have equal access to cultural education of the highest possible standard.

It would perhaps be most desirable of all if people with lower professional qualifications, hence taking lower positions in the occupational hierarchy, were able to reach the higher and highest levels of cultural participation. It can be excepted that if creation of cultural values is possible in case of people lacking higher vocational education, then the same thing should be possible in case of cultural "consumption".

Along with the development of democracy, there will appear a growing demand for individual cultural advancement, independently of other personal plans for the future. People are often ready to accept certain inequalities of material standard, in social or professional position; they see no reason, however, for accepting inequalities in cultural participation. Culture is regarded as a sphere of equality of human beings and any barriers in that field are experienced as particularly unjust or even inhuman.

After abolition of such obstacles on the way to cultural participation as used to be created by social background, financial status or the place of living, isn't it time to start eliminating those arising from a given level of education?

Is it possible to solve the contradiction within the existing educational system resulting from the fact that the demand for highly-qualified specialists is limited by the requirements of the labour market while cultural education should be unrestricted and generally accessible?

It seems that such possibilities do exist. In order to carry them into effect, it is necessary to overcome the limitations faced by people who happen to possess smaller occupational qualifications. The independence of the cultural education can be achieved, first, through prolonging compulsory general education up to university level, and secondly, through the essential reorganization of universities. From the higher vocational schools universities should change into the centres of modern culture, generally accessible and exerting influence on the whole society.

If human life in the future — and that future starts now is to be fully humane, universities will have to join in the attempt at methodical stimulation of processes leading to this purpose. Universities — as was their great tradition — should become centres of creative attitudes towards life and culture. They should make a forum for dispute on the fundamental humanistic values, on their proper understanding and continuation. Science should become a matter of criticism and creative endeavour; conveying of cultural values should activate the minds and stimulate reflexion.

Universities would then gain in the whole society that significance which they once had in its limited circles. Double meaning of the traditional name "universitas" — completeness of knowledge and universal participation in its development — would find realization, fulfilling thus the dreams of great pedagogists who — like Komeński — wanted "everyone to know all about everything".

It is a magnificient vision of a truly democratic equality of human beings, but then it has always been inherent in the ideals of socialism, which aimed at the situation in which a common worker would have the knowledge of art, science, technology and philosophy equal to that reserved so far for artists and intellectuals.

4. Utilitarian and Autonomous Values of Science. The above considerations have brought us to the essential problem of our era, i.e., to the question of the quality of life and the role of science in this respect.

Both natural and social sciences serve to the better organization of the material and social aspects of reality. The role of science, however, must not be limited to cognition that would ensure the optimal guidelines for action.

The more the natural and social sciences will tend towards praxiological and pragmatic goals the more pronounced will be the need for the studies on man, culture, values of life. For the organization of social and material practice requires the acceptance of humanistic values.

Man does not only play particular social "roles"; he also wants to shape his life for himself, for other people, wants to experience values that he appreciates and considers important.

There are two basic aspects of modern humanistic culture that bear particular significance for its perspective development and its role in human life: a great responsibility in forming the advancement and ultimate aims of modern civilization, and the search for modern concepts of values.

That kind of confidence in science is derived from the ideas of the early 17th century philosophy of Francis Bacon. But is the social significance of science really limited to production of "tools" of action? Can it remain neutral as regards their application?

This question exceeds the frame of Bacon's philosophy. Science still must serve the social and material advancement of civilization, but it has to undertake new tasks of preserving and perhaps amending that civilization.

Scientists called forth as experts must frequently consider not only technical problems, but also moral implications of planned actions.

In our times science can no longer remain neutral. It has to be involved in important new tasks consisting in rational control over the advancement of civilization towards public weal. It is true both for the objective, material and social reality, and for people's subjective experience. It is a question of a programme for the renewal of the "world of objects" and "world of human beings".

The essential problem of that latter sphere of reality is that concerning the value of life. Modern man is much better prepared for action than for living. People have acquired the ability to "do", but they are not able to create life that would bring moral satisfaction and a sense of value. Various distortions of the consumer civilization arise from the feeling of sterility and emptiness in life, so that people seek artificial stimuli "to keep on going".

How to bring a sense of value to human existence? How to make life worthy of living?

Those are the questions of modern civilization which — as someone has said — stopped being a civilization of aims and became a civilization of means. Perhaps we really know better how to act than what for?

These anxieties gave rise to a model of life in which pursuing of ever new aims is of utmost importance, as it helps to organize everyday activity, making it always more dynamic. But then life becomes, in fact, "a means of living" instead of satisfying existence which would have its own inherent values.

The nature of man is such that he finds satisfaction and fulfilment in action, constantly pursuing some future goals and always surpassing his own achievements. Yet does the essence of life lie only in organizing and utilizing it? Or is it a value in itself?

The concept of human life as a system of autonomous, non-instrumental values, important in themselves and not as a means for achieving some other goals, forms a base for reshaping modern civilization of objects into a civilization of human (and humane) beings.

That means that non-instrumental orientation in life ought to be defended and disseminated. This issue concerns whole culture as well as all spheres of human activity which can be regarded either as a means to other aims or as a value in itself.

From this point of view, science, art, technology, work, and morality must not be treated solely as "means" leading to particular aims, but as independent, autonomous values.

Acceptance of such model of being allows to solve the problem "science versus value of life" in a way different from those most frequently formulated.

Science is an important factor in creating value of life in that it opens way to intellectual experience, to cognitive passion. Universality of science which is a matter of much consideration means not only an increasing number of people with higher education performing functions that require sound knowledge and scientific methods. It also means that a growing number of people — owing to higher education — can experience that particular satisfaction which arises from scientific cognition. What is the value of life, after all, if it resolves itself into fruitless labour, shallow entertainment, egoistic relationships and directing of all efforts towards higher material standard?

Only when we are able to attain better knowledge of reality — that which we directly experience as well as that which is past — when we develop and satisfy our curiosity of the world — only then is our life truly valuable.

Over a century ago Renan recognized the dangers of civilization which reduces human life to purely instrumental interests.

His opinions had not been isolated. Let us remind the memorable words of R. Poincaré: "I shall not say: science is useful because it teaches us how to build machines; I say: machines are useful working for us because one day they will leave us more time for science".

That "one day" has just come. Science is precious simply because it fulfils man's cognitive passion, makes his activity more interesting and absorbing. It helps to create the "quality" of life.

Retaining its role in preparing man for life in society and for his professional activity, education has become a value in itself, desirable not only as an efficient way of obtaining promotion, better salary or higher social standing, but also because it helps to develop and satisfy man's intellectual interests, makes our life fuller, richer, more exciting. Along with education one attains a form of happiness arising from the sense of value of life.

So far those processes have not been very widespread. However, they appear in many countries as a forerunner of essential changes in valuation of the social role of education, including changes of motives which drive people towards education. It is perhaps the most fundamental — however underestimated — problem of the future. Under these new conditions it would be an anachronism if the function of educational system remained limited to vocational training, and did not attempt at satisfying human needs in the sphere of general education on a higher level.

The need for "education as such" will constitute the most valuable element of the future society, in which on the one hand, a growing number of people will have to improve their professional capacities, and on the other, more and more people will want to widen their cultural horizons in the field of their personal interests.

Those needs are already shaping a new style of life. Instrumental approach to education regarded as an element of his occupational activity links man to his social role and ensures him material support. "Disinterested education", on the other hand, makes life rich and diversified, colourful and fascinating. Reorientation of attitudes towards anti-consumption can be achieved sooner under such conditions than under the influence of any other stimuli.

Understanding of the fact that education is not only a tool for achievement of social and professional position, but is also an autonomous value which makes life "worthy of living" — is a key to understanding of perspective of the future society, and especially the role of higher education.

5. *The Concept of Life.* Recognition of the autonomous value of science in the educational activity of universities leads to the most important as well as most difficult problem of all, that is to the question: What is the way of living and why should this particular way be chosen?

Those are the fundamental questions of human existence. If a great dialogue between different cultures of the world is to be carried on, and if it is to lead to the establishment of a new cultural order, these questions cannot be avoided.

Have we the right to demand that universities — among other institutions of modern society — attempt at answering those questions?

If we believe that universities must not avoid such problems, it is because the humanistic vision of life will not find support but in universities; without them, it would be impossible to overcome the dangers brought about by modern industrial civilization.

What is the role of the humanist in the world of technology, industrialization, computers, scientific organization of work and management, in the world of entertainment industry and mass culture? Even if not all goes well in this modern world, if there is need for reform and improvement — it is not the humanists who can perform the task. In the struggle for the preservation of natural environment, humanists have nothing to say — it is the doctors, biologists and engineers that are relied upon. The so-called dissemination of culture most frequently means spreading cheap entertainment while producers of cultural rubbisch take advantage of the primitive tastes.

In that atmosphere of difficulties and accusations, distrust and scorn, [illegible] culture has been led astray. Some of its proponents [illegible] it as purely traditional, historical value, devoid of associations with modern civilization in its development; thus alienated from life it assumes a doomed position. For some people it becomes an object of sophistication bordering on snobbery; at the cost of obscurity and incomprehensibility an isolated kingdom is being created until someone dares say "the king is naked". Under these conditions humanistic culture remains only a school subject, fruitless and mutilated, appearing in people's lives as a faint memory or commonplace stereotypes, occupying a narrow space that is left between work, entertainment, and sleep.

What perspectives can be placed against such a disturbing and difficult situation? Modern civilization is a complicated form of human existence. Only superficially it may appear as a "civilization of the pressed buttons", and only metaphorically can we talk of "thinking machines". For finally it is man who thinks and acts with the help of constantly improved instruments. And only people can control the socio-technological reality they have created and continue to develop. Therefore man is not only a "worker" in the world of machines, but also a manager. Degradation of man in the modern world must be counteracted by man's responsibility. The future order of the world will emerge as a result of dialectical interaction of acivity directed against the chaos of objects and chaos in man. It calls for reconciliation between people and their civilization of science, technology and organization of life. Such reconciliation would mean that man ought to adapt himself to the modern conditions of life while these conditions, in turn, should be adjusted so as to satisfy and stimulate more ambitious human needs.

General improvement of people and objects is a very ambitious programme. Yet if we do not manage to fulfil it, our world will perish. It is difficult to say, what is more impending to realization of that programme: objects or human beings. Perhaps when we realize the limitations of the growth of civilization, we shall efficiently direct the efforts of scientists towards the goal of protecting this civilization they have created themselves. Maybe, once we begin to recognize the social and mental barriers of development and preservation of civilization, we shall see the new role of culture, particularly in shaping motives for human activity and the sense of existence.

What is then the mission of humanitic culture?

In the broadest sense it consists in teaching people how to organize the world they create and live in, so as to make it more humane. It is a great, and in a sense new task.

Here opens a vast field for study that has been neglected thus far. Social, economic, and legal sciences will have the opportunity to offer their expert contribution, and carry on a dialogue with politicians, responsible for introducing new forms of public life and controlling the country's development. These goals are becoming an integrating and orientating factor in the social sciences. Their methodology takes shape under the pressure of the necessity to attain the highest possible efficiency. The whole new praxiological terminology is becoming generally accepted. It must define particular elements and conditions of the strategy for action, decision-making, optimization of results, assessing proper parametres, etc. Social sciences tend mostly toward informatics, which may be differently understood, but must always lead from facts to management.

Here, too, we touch on the central problem of our times. Does the afore-mentioned tendency of the social sciences really serve the purpose of humanistic culture? In a sense, everything that promotes order in the world in which people live serves that purpose, but does not necessarily bear direct significance for the humanistic culture. Today, it has become clearer than ever before that it would be erroneous to label all non-natural sciences as social sciences. It would obliterate the specificity of the humanistic sciences which deal with man and culture. The fact that man and culture exist within social life is not sufficient to define that branch of science as social science; similarly, they cannot be named "historical" though they "occur" in the course of history.

The more social sciences — in the strict sense, i.e., sociology, economics, law, politics — will tend towards praxiological and pragmatical aims, the more pronounced will be the differences separating them from the science concerned with man and culture. Along with the organization of social practice there appears the most significant question of learning and accepting humane values.

What is the essence of that sphere of problems? It is closely connected with man's quest for the worthy life, for existence justified by satisfaction gained though diversity of experience. It embraces answers to the deepest anxieties of our times, to human alienation, to man's feeling of weariness and indifference, to social unrest. Finally, it is a question of the style of everyday life, built in opposition to easy conformity of consumption, to the monotony of the mass production of "cultural" models.

That is the diagnosis of our situation. Humanistic culture is becoming an autonomous human need in an era in which man's praxiological abilities are faced with severe difficulties, in which controlling the development of national and social reality requires not only modern informative science but also modern people. What counts in this harsh and complicated world is not only what man is able to do, but what is his inner value.

Let us make one more step in this future-oriented analysis. Introducing a notion of "humanistic culture" as an autonomous category of being and getting rid of all direct praxiological association we do not separate it from reality; to the contrary we render justice to man's perennial aspirations, to that driving force that for centuries has made man take all the risks in the process of taming nature and organization of his own environment. As the Romans wisely said, man does not have to live but he must sail.

It is this bold and manifold "sailing" that has constituted the essence of the everlasting advancement of mankind. It has been, an inexhaustible source of humanistic culture.

Even though we have entered an epoch of the civilization of science and technology, still the establishing of the social order based on the principles of equality and

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justice cannont rely merely on informatic science that teaches us how to control the world, yet leaves open the essential question: why? And although the organization of work and leisure in that civilization seems to embrace all aspects of human life, yet man's deepest motives and aspirations, his creative endeavour and search for the beauty of life exceed the limits of the formalized system of dependencies and services.

It has been centuries since Aristotle introduced the notions of praxis and poesis — action and creation, the former understood primarily as moral action, the latter as "inventive contriving and creating of works". The latter tradition changed the sense of this differentiation: practice became a socio-material category, while creativity became a domain of poetry. This change, however, did not disturb basic duality which shows human activity in terms of necessity and in terms of freedom. Linking art and science, Aristotle differentiated them by means of the following argument: the former concerns objects, the latter deals with being. That differentiation also was transformed in the course of history, as science became a powerful force in shaping reality. Yet once again the fundamental sense became intact: man has a capacity of cognizance as well as creation of objects as an expression of his self-realization.

In its most essential meaning, culture consists in creation which lies at the source of all action, and which constitutes the great poetry of life, the superstructure of existence — cognizable and transformable. Therefore it is a fundamental power and value of man's social existence. Thus was it conceived by Marx who stated in his "Grundisse der Kritik der politischen Okonomie" that the true sense of economy lies in preventing waste i.e., such organization of production as to enable man to achieve the fullest possible development. "Free time", wrote Marx, "is both the time for leisure and the time for more sublime activity: who possesses it is transformed into a different subject; a man thus transformed enters again production processes", in which he can prove himself and develop his creative capacities.

Once the principle of preventing waste becomes a rule in the material-social strategy, man will gain optimal con-

ditions for freedom; humanistic culture adds involvement to that freedom, thus protecting it against emptiness and sterility of existence. It creates truly humane values.

From this point of view, we can recognize the role of universities in molding the character of new generations so that young people be able to conceive of their own culture as a system of living and be prepared to undertake a dialogue with other cultures of the world.

Only if universities undertake these difficult tasks will they be able to contribute to the great dialogue which is to serve a new cultural order in the world.

Б. СУХОДОЛЬСКИ

Гуманизм современного университета — его роль в создании нового культурного порядка в мире

Создание нового экономического порядка в мире не является делом исключительно международных торговых соглашений, международных квалификаций и организационной четкости. Планирование и осуществление нового экономического порядка глубоко укоренилось в процессах интеграции и дезинтеграции разнородных культур, а также в процессах перемен возникающих в сфере мировоззрения и оценках устанавливающих постоянные и переменные критерии человеческого поведения, а также концепции ценности жизни. В силу этих взаимосвязей новый экономический порядок порождает сложную проблематику нового культурного порядка и одновременно в большой степени зависит от неё.

Опыт показывает, что задача создания в мире нового культурного порядка очень трудна. Анализируя её необходимо отличить несколько разных сфер деятельности.

Во первых: речь идет о роли науки и техники на свете. Создание нового культурного порядка должно охватывать соглашение в деле общественного управления развитием науки и техники.

Вторая область деятельности для нового культурного

порядка касается стиля жизни. В разных странах света он проявляется по разному. Хотя и очень трудно уравновесить разные стили жизни, всё таки необходимо стараться всеми способами достичь этого, поскольку в ситуации сильных противоречий невозможно будет создание общего культурного порядка.

И наконец, третья сфера деятельности — это проблематика смысла и ценности жизни, проблематика человека, его предназначение и призвание. В этих перспективах мы видим роль университетов в обучении молодых поколений пониманию их собственной культуры, как системы жизни и готовности начать диалог с другими культурами мира. Деятельность университетов не должна ограничиваться только передачей знаний, профессиональным обучением, подготовкой к хорошему исполнению будущей профессии; речь идет о чем-то гораздо более сложном о формировании определенного подхода к жизни и к окружению, о решении сложной проблематики смысла жизни и ценностей, для которых стоит организовать нашу жизнь.

B. Suchodolski

Humanismo de la universidad contemporanea y su papel en el establecimiento del nuevo orden cultural en el mundo

El establecimiento del nuevo orden económico en el mundo no se debe únicamente a los internacionales convenios comeriales ni a la capacidad y eficiencia de organización internacionales. La planificación y realización del nuevo orden económico está profundamente arraigada en los procesos de integración y desintegración de las diversas culturas, como también en los procesos del cambio de opinión en cuanto al mundo y los valores que determinan los criterios, tanto fijos como variables, de la conducta humana y los conceptos del valor de la vida. Dadas estas relaciones, el nuevo orden económico crea la complicada problemática del nuevo orden cultural, a la vez que depende en sumo grado de éste. La experiencia demuestra que la tarea de establecer un nuevo orden cultural en el mundo es algo muy complicado. Al analizarla habría que distinguir varias esferas diferentes de actividad. Primero: el papel de la ciencia y la técnica en el mundo. El establecimiento del nuevo orden cultural debería abarcar el acuerdo en cuanto a la manera de dirigir la sociedad, el desarrollo de la ciencia y la técnica. La otra esfera de actuación concerniente al nuevo orden cultural se refiere al estilo de vida. Este varía mucho en las distintas partes del mundo. Aunque la igualación de los distintos estilos de vida parezca muy difícil, se debe realizar todas las medidas encaminadas a este objetivo, puesto que no podrá ser creado ni establecido ningun orden cultural global mientras existan las agudas contradicciones. Y, finalmente, la tercera esfera de actividad abarca los problemas del sentido y el valor de la vida, la problemática del hombre y su destino o vocación. Aquí es donde vemos el papel de las universidades en la tarea de educar a las generaciones jóvenes en comprensión de su propia cultura como sistema de la vida o la manera de vivir, y en disposición a entablar el diálogo con las otras culturas del mundo. La tarea de las universidades no se limita tan sólo a la enseñanza, a la instrucción profesional, a la eficaz preparación del estudiante al campo laboral. Se trata aquí de algo mucho más complicado: de formar una determinanda actitud del hombre hacia la vida y hacia los demás, de solucionar la complicada problemática del sentido de la vida y de los valores según los cuales vale la pena organizar nuestra vida.

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Institutions of Higher Education and Economic and Social Crisis

by

JAN SZCZEPAŃSKI

1. The Development of Mass Education. After World War II, especially after the completion of the postwar reconstruction, a really favorable period began for higher education. There were several reasons for it. During the war, teaching at the higher level was severly restricted since young people acquired their "education" not in universities but on battlefields. Those who survived and returned home demanded compensation, hence, in many countries veterans were given privileges to enter institutions of higher education, which they did and in great numbers. Social movements were the second factor; the victorious revolution in many countries, especially in socialist Europe, enforced by law the access to higher education for the previously underprivileged classes. This revolutionary ideology exerted influence on all countries and the access to higher education started some kind of competition between social structures. Then institutions of higher learning had to bridge the gaps caused by the war and produce successors to the dead. The economic reconstruction, which used scientific and technological achievements developed during the war, needed much more specialists with higher education than the prewar economy. The application of science and technology boosted the economy and substantially increased labor productivity and investment effectiveness. It was the beginning of the period called "a scientific and technological revolution", which was particularly manifest in the development of space technology and the space race. The cold war started a new arms race, which absorbed a significant percentage of qualified personnel and produced the necessity of their mass training. Up till now 60 percent of scientific and technical workers all over the world have been employed by the military. The exploitation of the postcolonial countries, cheap oil and raw materials substantially contributed to the rapid economic growth, attributed to the activity of the highly qualified personnel. The 1960s, in particular, brought about a very high increase in the number of university students with a simultaneous spread of theories claiming education to be an essential factor of economic growth. It was in the 1920s that Strumilin advanced these theories, but they did not quite catch on in the West until the 1960s. It was argued that education increases productivity and intensity of labor, improves the quality of products, invites technological and organizational advance etc.[1]. Extreme views ascribed to education a decisive role not only in economic growth, but also in social and economic one.

This was quite an old view, going back to the Middle Ages when universities educated scholars, scribes, clergymen, lawyers, physicians, philosophers for princes, bishops, kings. Simon Maricius from Pilsen wrote in his book entitled De scholis seu academiis (About Schools or Academies) published in 1551, "What then, for the Everlasting's sake, can more successfully raise the dormant forces of the nation, what can add more to the preservation of its welfare, peace and security, what will more strongly support the prestige of the clergy, king and senate, maintain the unity of the people and ennoble the military profession than the well set-up schools and academies". And going through the documents of the Polish Committee for National Education of the late 18th century, we can find a very similar belief in the crucial role of education in the development of society and its civilization. The Age of Enlightment considerably deepened and substantiated these views. These and other traditions of the role of education in the development were propagated and substantiated again and again and education was brought to the fore to veil the less glorious reasons for the economic growth after World War II, namely wasteful exploitation of cheap oil and other raw materials in the Third World countries.

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[1] See eg. John Vaizy: *The Political Economy of Education*. London 1972.

2. *The End of Euphoria.* The development of mass education at the higher level was going on in all countries of the world, in capitalist, socialist and Third World ones alike. They tried to develop the latter by following the same path the developed countries in Europe and other continents had once taken. However, at the end of the 1960s, some phenomena cropped up that initiated some kind of retreat from the mass enrollment. They were of two kinds: political and economic. The political factor was the student revolt of 1968 and the following years, which spread over highly-developed countries, not only capitalist ones, and which made the groups in power think something like this, "Why spend vast sums of money on training revolutionaries who want to remove us from power?" This led to increased interest of politicians in the system of higher education, its costs, training efficiency and social effects of the rapid growth of well-educated people.

Economic processes were the second factor, particularly, when after the Middle East crisis and oil export restrictions, the rapid increase in oil prices rocked the established economic order based on cheap energy. Then it proved that highly-qualified personnel, highly-skilled economic management, productive and intensive work resulting from education are not the only determinants of economic growth and are also not the only factors necessary to overcome the crisis. Energy and raw-material prices, international trade, export possibilities, all in all, a more explicit international New Deal came to the fore. Highly-trained personnel and, hence, the system of higher education proved to be one of the important factors, but not the most important ones.

So the enrollment went down, unemployment hit university graduates and the demand for their qualifications dropped substantially generating frustrations and chaotic migrations in search of a country that could use their knowledge and let them satisfy their ambitions. The euphoria of mass education and belief in the weight of "human capital" and "investment in education"[3] was gone.

3. *Studies and Reports.* In the late 1960s and early 1970s, in many countries, special committees of experts were set up to produce a new idea of education, to evaluate the existing school systems and to advance a reform of the school systems at all levels including the system of higher education[4]. The intentions underlying the establishment of such bodies by governments and international organizations were of different character. Some governments were not interested in the reforms, but in appeasing public opinion and were playing for time. They had their own ideas, but they wanted to take cover behind scientists' presige, who were busy working on the report. Other governments were genuinely anxious to find out the reasons for the prevailing unrest in colleges and universities and wanted to grasp the motives of the young contestants. The goals of the reports were different. The Polish *Report on the State of Education* was aimed at a fuller synchronization of the school system with all educational phenomena and processes within society and at finding ways to make education the optimum development factor. All the reports were openly trying to produce a more effective system of education, more suited to society's needs. On the other hand, however, the authorities clearly strove to tighten their control over schools and institutions of higher learning in particular. Sociologists know that schools attend to various tasks, prepare young people for their participation in social life, for jobs and public life, for taking part in culture and creating its values, but, on top of that, they are also a control factor which holds a tight rein on

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[3] See Howard R. Bowen: *Investment in Learning. The Individual and Social Value of American Higher Education.* Jossey--Bass Publishers 1977.

[4] See Czesław Kupisiewicz: *Paradygmaty i wizje reform oświatowych (Paradigms and visions of educational reforms).* Warsaw 1986; Czesław Kupisiewicz: *Przemiany edukacyjne w świecie (Educational transformations in the world),* 1978; Czesław Kupisiewicz: *Szkolnictwo w procesie przebudowy (Education under transformation).* 1985.

young people. The slackening of the reins, as expressed in the youth revolt, disturbed not only governments and political parties, but also the large public who thought the young were beginning to pose a threat to the essential values they considered indispensable for maintaining social continuity and identity.

So the 1970s were marked by studies, reports and expectations of reforms. At that time, almost in all European countries, new laws cropped up introducing new regulations imposing control on the operation of institutions of higher education. Simultaneously, outlays on schools dwindled, enrollment subsided, but the economy was going through electronic modernization, which deeply affected the employment structure. According to American statistics, in that most advanced country, the percentage of white-collar workers went up from 17.6 in 1900 to 31.1 in 1940 and to 52.2 in 1980. In the very same years, the percentage of the blue-collar workers was 35.8, 40.0 and 31.7 respectively. The percentage of those directly employed in agriculture dropped from 37.8 in 1900 to 2.8 in 1980[4]. The interpretation of these figures is rather difficult since we do not know what percentage of the white-collar workers should be ascribed to college and university graduates. We know for sure, however, that it is highly trained and specialized scientists and technicians who must be credited with the development of Silicon Valley and modern computer industry.

Two areas, in particular, strongly affect university graduate employment. They are space technology and the production of space ships as well as military technology, armaments programs, especially such as SDI or Star Wars, which attract high qualifications and creative abilities. Any other field of armaments, be it nuclear, rocket or conventional arms, also needs very gifted brains. So reports and studies on higher education were also geared to establish the intellectual potential of individual countries as an economic, foreign, social and cutural policy factor. The term "specialized talent resources" was coined to mean the number of people not only formally trained, but also having knowledge that may be used versatilely.

So how did the functions of higher education change in the late 1970s and the first half of the 1980s? The time of reports is over. It ended in disappointment on the part of those who worked them out and those who expected them to provide recipes for action as well as the large public, who felt badly let down with the rather inconclusive effects of the reports.

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[4] Newsweek International, April 7, 1986, p. 7.

4. *Higher Education during the Years of Crises*. Well, now it is time to take a calm and cool look at what effects higher education may produce during economic and political crises such as the one that broke out in Poland in 1980 - 1981. How much of the tradition developed in the past has survived and is likely to continue and what new is brought by social and political processes? Questions of this kind begin to pervade modern literature[5]. The train of reflection on this type of education seems to lead from normative propositions stating what institutions of higher learning should be, from partial research on detailed empirical problems to studies on real mechanisms that determine the true impact of those institutions on their social environment. Can we still repeat Simon Maricius's claim? For some time it seemed that the training of people for industry would be taken over by the very industry, that the breakthrough research would be transferred from institutions of higher education to military, industrial institutes, or any other specialized establishments outside colleges and universities and that these schools would again relapse into scholasticism and obscurantism as was the case during the first industrial revolution which took place outside and even in spite of them.

Our reflection turns now to the following fields of phenomena: What is and may be the role of institutions of higher education in solving hard problems of the Third World, its social and economic backwardness, its foreign debts and its relations with developed countries? What is the real role of such institutions in abating tensions and solving political conflicts between ideological blocs, between the East and the West, the South and the North? Are they an independent factor in shaping the policy of states, powers and superpowers? And even within one country, can institutions of higher learning play any independent and constructive role in internal conflicts? What is the true function of these schools in solving domestic economic problems and those in international relations? Is higher education really the most important factor of economic growth, or does it have no influence whatsoever on it, as Fagerlind and Saha maintain?[6]

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[5] Clark Kerr: *The Uses of the University*. Harvard University Press 1982.

Let us begin with the third problem. It is obvious that educated people are indispensable for economic development. They include specialists designing production technologies, developing necessary tools and machinery, organizing production and processes of all kinds of work, managers etc. It also goes without saying that the education of workers employed in the national economy affects their attitudes, aspirations, goals, motivations, performance etc. And the real influence of education is confined to these economic spheres which depend on workers' characteristics shaped by schools. Education, however, has no influence on many other phenomena and processes, as it was clearly shown by the oil crisis, namely on the supply of raw materials, prices of raw materials, prices of energy, imperial interests of states, interests of large international corporations, dependence of the economy on the military-industrial complex, dependence of the economy on political party interests and those of interest groups etc. One can advance a theory that the growing domination of politics over the economy in the 1980s, especially after President Reagan took over, seriously limits the influence of the higher education system on the economic policy and reduces it to a producer of executives and technical personnel. Scientific and technological research has been moving away from institutions of higher learning to specialized establishments directly linked with the economy. Obviously, the quality and standard of education also determine the level of the personnel working for the economy, but it has a small influence on the interests of large groups that control the economy of individual countries and economic blocs. So I think that one has grounds to maintain that higher education has been losing its leverage on the economy. Scientific workers of higher education may work out draft reforms, put forward policy concepts, suggest inventions, but what realy turns out depends on specific groups of interest, which take no account of their opinions.

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[6] Ingemar Fagerlind and Lawrence J. Saha: *Education and National Development*. Pergamon Press 1983. An attempt of the true evaluation of the impact of education on development was made by Sylvain Lourié:*Education et Development*. UNESCO 1985.

The influence of institutions of higher education on the contemporary domestic and international policy is of a similar kind. They still train workers for the political apparatus, for all sociopolitical structures, produce ideologists, who come up with political concepts, educate apologists and critics alike. Students and university workers may become political party workers, opinion makers and opinion leaders, opposition task forces, social movement organizers, experts and advisers, but institutions of higher learning do not constitute the core of decision-making political establishments. It is not they who make and shape politics since these decision-making aspects of political activity are handled by big political parties or interest group wire-pullers. The late 1960s produced a big political outburst of higher education institutions that ended in a disaster since they failed to impose their vision of their tasks and organization on governments. The reforms carried out in many countries tightened the political and police control over schools and student masses in particular, and governments increased their control over the appointment of professors and scientific workers and over school financing. "He who pays the piper calls the tune" is often quoted during discussions on political aspects of higher education and its relations with political authorities. The Big Politics towering over states and blocs does not put up with political independence of institutions of higher education. They may develop theories, carry out research on politics within permitted boundaries, without threatening the interests of the ruling groups, they may organize discussions and shape opinions, but professors on governments or in ruling party groups are there not as higher education representatives. Thus the influence of these schools on the solution of political conflicts and crises is rather insignificant and is reduced to verbal exercises without affecting real political forces determining the course of real political actions. Political usefulness of institutions of higher learning is not measured by internal criteria developed by them.

Likewise, in the third sphere — the solving of Third World problems — higher education institutions are not an independent force. Their activity is reduced to the formation of ideas, theories, ideologies, programs etc., but their impact on the shaping of the policy of states, concerns, multinational corporations and organizations, which actually handle economic policy and form international interrrelations, is also negligible[7]. Higher education is not a policy determinant in the Third World countries, old colonial metropolises or socialist countries and does not affect international relations that determine the course of the Third World. Universities train employees, advisers, organizers, but their efforts depend on erratic political dictatorships, irrational coup d'états, sudden changeovers of political elites or decisions made by anonymous groups of interest in far-off countries.

All this sounds quite pessimistic, but the general outlook for the first half of the 1980s is not rosy for institutions of higher education in almost all countries of the world. Nevertheless, it is also necessary to emphasize those factors which give strength and importance to institutions of higher learning. Their social strength comes from the quality and level of their teaching, the quality of the workers trained, the quality of their research findings. Hence, what determines their position in society is not their direct involvement in backing up or fighting political programs or parties, but the standard of their accomplishments; that is what made the universities of the past great and famous. The second element of their strength is the elucidation of development prospects, prediction of trends to follow to preserve societies, nations and cultures. Each society has two basic problems to solve: to preserve its identity and continuity and, while protecting its fundamental values, to develop so as to be able to continue in the vanguard of progress. In both these spheres, institutions of higher learning can play an eminent role, regardless of

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[7] See Bikas C. Sanyal ed., *Higher Education and the New International Order*. International Institute for Educational Planning, Paris 1982.

how governments, economic organizations and any groups of interest cope with the current problems. Institutions of higher education can "guard fundamental values" by winning the prestige of dignity and respect. And their strength is generated by the high quality of their pedagogical and scientific accomplishments.

Я. ЩЕПАНСКИ

Высшее школы и кризисы народного хозяйства и общества

Автор ставил перед собой вопрос какова действительная роль высших школ в современном развитии обществ и каково их влияние на состояние народного хозяйства и мировой политики. После второй мировой войны начался период массового обучения, а одновременно создавались научные теории и идеологии, считающие высшее образование решающим фактором развития. Все-таки политический и экономический кризис в конце 60-тых годов воздузил много сомнений и в 70-тых годах во многих странах и международных организациях было приготовлено много рапортов анализирующих положение высших школ и их действительное влияние на состояние народного хозяйства, политики и общества. Оказалось, что высшие школы и ведущиеся в них исследования все более и более поставлены в зависимость от гонки вооружений и гонки в космос и что хотя высшие школы приготовляют „ресурсы выспециализированного таланта", но их выпускники не имеют никакого влияния на цели экономической политики, ни на цели и методы политики государства. Таким образом рассеялись многие иллюзии с периода массового обучения и веры в значение обучения. Оказалось, что не уровень обучения, а цены нефти и сырья определяли состояние народного хозяйства. Оказалось также, что высшие школы не имеют влияния на состояние народного хозяйства, потому что решающее слово о направлении ее развитии принадлещит верхуш-

ке в аппарате экономики прежде всего великих держав. В дальнейшем оказалось, что высшие школы ни в коей степени не влияют на международную политику, ни на состояние обществ развивающихся стран. Автор в заключении подчеркивает, что роль высших школ и их значение в обществе не зависят от их роли в народном хозяйстве и политике, а от качества их работы и от качества достиженных педагогических и исследовательских результатов.

JAN SZCZEPAŃSKI

Las escuelas superiores y las crisis económicas y sociales

El autor se plantea la pregunta sobre el verdadero papel de las escuelas superiores en el desarrollo contemporaneo de las sociedades y cúal es su influencia en la economia y la política mundial. Despúes de la II Guerra Mundial comenzó el período de instrucción masiva, al mismo tiempo que fueron creadas teorías científicas e idologías que trataban la enseñanza superior como el factor decisivo del desarrollo. Sin embargo la crisis política y económica de los años 60 suscitó muchas dudas, y, en los años 70, varios países y organizaciones internacionales elaboraron muchos informes que analizaban el estado de la escuelas superiores y su verdadera influencia en el campo de la economía, la política y la sociedad. Resultó que las escuelas superiores y las investigaciones realizadas por ellas estaban cada vez más sometidas a la carrera de armamentos y la conquista del espacio, que aunque las escuelas superiores instruían "reservas de talento especializado", los graduados universitarios no tenían influencia en los objetivos de la política económica, ni tampoco en los objetivos ni métodos de la política de los países. Así pues se esfumaron muchas ilusiones del período de la instrucción masiva concernientes al valor de la enseñanza. Resultó que el factor decisivo que determinaba el stado de la economía no era el nivel de

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instrucción sino los precios de petroleo y materia prima. Resultó también que las escuelas superiores no tenían influencia en el estado de la economía, puesto que las decisiones concernientes al rumbo de su desarrollo eran tomadas por las élites económicas, ante todo de las grandes potencias. Además, las escuelas superiores tampoco tenían influencia en la política internacional ni en las condiciones de vida de los países del III Mundo. Concluyendo, el autor subraya que el papel de las escuelas superiores y su importancia para la sociedad no depende del papel que desempeñan en la política o en la economía sino de la calidad de su trabajo y los efectos de la calidad de la labor pedagógica e investigativa.

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Higher Education in the Forty Years of People's Poland

by
JAN KLUCZYŃSKI

Higher education in Poland today and its effects: university graduates engaged in work for the national economy and culture appear to be consequent upon the crucial decisions made in the period of the reconstruction of this country after the Second World War. The fifties saw the making of the principal decisions regarding directions of the reconstruction and development of the country and educating personnel indispensable to put the programme into effect. This was followed by the adoption of directives respecting the whole of the educational system and the future proportions of vocational qualifications and the level of the nation's education to be achieved. The substance of the decisions was largely affected by the conditions of the post-war start made in the field of training highly skilled personnel and long-term needs that determined the tasks to be pursued in the realm of education at all types and levels of training.

Here is a brief account of the principal aspects of the situation in the field of the post-war resources of vocational qualifications in Poland:

a) the war damages were particularly grave among graduates of secondary schools and institutions of higher education. The closure of schooling at secondary and university levels as part of the Nazi occupiers' policy toward the invaded nation resulted in the 5-years long gap that could, but in part only be made up for by effects of clandestine education;

b) the quantitative deficiency of skilled personnel was deepened by incompatibility of the post-war needs of industralization and the available range of vocational qualifications consequent upon the pre-war educational institutions' policy in the selection of specializations to be taken up by students;

c) the post-war systemic changes necessitated the supply of personnel trained to take up jobs and vocational specializations typical of economy and culture of a socialist state;

d) the implementation of the programme aimed at promotion and extension of democracy in the whole of the educational system brought about emergence of unlimited opportunities of taking up higher education for children of labourers and peasants, the social classes that had been most underprivileged by then;

e) the presence of the enormous gap between the very limited supply of graduates from secondary schools and institutions of higher education and the needs of the economy and national culture, as well as the aspirations of the young people deprived of the opportunity of acquiring education in the years of the war necessitated the existence of the special rules of rational management of the products of schooling at advanced levels that assigned the graduates to the establishments that reported the gravest deficiency of highly skilled personnel.

All this created the model of higher education that has been operating until the present day with only minor changes.

I. Directions of development. What were the crucial decisions that played so prominent a part in the formation of the present-day shape of higher education in Poland?

1. The development of production of goods and commodities, a dire need of the post-war time became a key target and education was made one of the areas subordinate to its requirements, the practical implications being: priority given to technological education, and promotion

of the faculties directly engaged in the development of material production.

2. The general deficiency of highly skilled personnel resulted in the rapid growth of educational tasks aimed at maximum reduction of the enormous deficiency of skilled workers in the national economy and culture, which meant restricting the course of education at numerous faculties to the necessary minimum, and establishment of "narrow specializations" for the training of skilled personnel provisionally designated to take on the roles they were assigned in the social division of labour. This strategy proved to be very successful in the contemporary conditions of general deficiency of skilled personnel.

3. The creation of equitable opportunities to enjoy the access to education for those who had not been able to benefit from it before and for youth coming from labourer and peasant families was only possible in the conditions of generally accessible system of educating working people providing a variety of allowances, benefits and other kinds of state assistance to those entering or resuming education.

4. Enrolment policies in institutions of higher education and the strategies of planned distribution of graduates in work establishment were aimed at ensuring proper selection of young people in respect to both their abilities and social backgrounds. In most cases there were several graduates from secondary schools competing for one place at an institution of higher education. The advantage of the policy as far as the potential employers' interests were concerned was its reliability meaning the regular supply of skilled personnel with whom connections had been established prior to their graduation through the special kind of allowance that was granted to a student upon the condition that he took on a job offered by the donor, provisional labour agreements etc.

5. Another feature of the post-war development of higher education was the stability of the tasks and forms of education. The development of training at the university level showed some quantitative changes mainly consequent upon demographic determinants and over some periods, economic ones too. The development of higher education was largely affected by the numbers of secondary school graduates in

the particular years, the manifestation of which was the public pressure on increasing quantitative aspects of performance of higher education. The periods when the state launched unusually large numbers of investment projects saw the consequent pressure on extending the scale of educating skilled personnel, indispensable to provide staffs for the projects being completed.

6. The changes in the structure and quality of education were surfacing as the needs of the national economy and culture were increasingly met, or when the economy showed a relative sufficiency of skilled staffs. The new policies were aimed at the improvement of the standards of education which was to be achieved, inter alia, through extension of the time of education and starting the training of graduates having the so-called broad profile of vocational competence. Moreover, the altered rules governing the operations of the economy, the principal change being the shift from central planning to the model of the economy marked by a significant degree of independent decision-making, necessitated strategies different from before in the training of economists, civil service officers, experts in planning, fiscal matters etc. The development of higher education was also substantially affected by the changes in the strategies of socio-economic and political development of the state, for instance the establishment of, free public health service required training of more medical personnel, while the expansion of food stuff economy sector necessitated more specialists with proper qualifications in the fields of production and processing of farm produce. The progress of public education in turn was dependent upon opportunities of providing the proper training of teachers.

7. The significant deficiency of skilled personnel in this country's economy in the post-war years as well as during the period of its industrialization triggered the emergence of special determinants that fostered the centralistic management of development of higher education and of the affairs relating to the employment of skilled personnel, as well as the use of unsophisticated devices and methods of planning development of education and demand for skilled personnel.

The consequence of the afore — mentioned general directions and principles of operation of higher education was the reinforcement of the basic trends of its development as well as the formerly adopted structures in the whole of the post-war period. Consequently, those years saw the stabilization of the general trends in the development of university training despite substantial efforts to modernize and improve the standards of education and to adjust its objectives to the altering determinants of the country's socio-economic development.

II. The hitherto effects. Over the forty years of People's Poland its higher education gave the national economy and culture 1.5 million graduates, the achievement that appears to be a resultant of the successive stages of development of this country's economic potential and educational capacities of higher education created to satisfy the needs involved in the process.

Here are the facts indicating the dynamics of the growth of education at the university level:

a) the annual number of graduates from institutions of higher education in the years of post-war reconstruction of the country totalled four thousand;

b) at the close of the first stage of industrialization of the country in the six-year plan (1950 - 1955), the average annual supply of graduates holding university degrees to the national economy and culture amounted to as many as twenty five thousand;

c) in 1960 - 1965 there emerged the first rumours of overproduction of intelligentsia which resulted in a small-scale reduction of enrolment and extension of the length of studies; the average annual number of the graduates was 21 thousand then;

d) the years 1966 - 1970 saw the new stage of the development of higher education marked by almost twofold increase in the number of students as compared with the first half of the sixties;

e) further acceleration of development of higher education was reported in 1971 - 1975, and the annual number of graduates totalled as many as 70 thousand;

f) the 1976 - 1984 gradual reduction of enrolment especially in the faculties attended by regular employees brought about the decrease in the number of students which

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became particularly visible from 1978 on. The effects of the education consequent on the 1971 - 1976 increase in the number of students continued to grow and amounted to over 80 thousand graduates in 1980. Since then, however, this measure of the development of higher education has continued to decline.

The effect all this has had on the state economy has been the increased percentage of skilled personnel in the overall size of employment. For instance, during the Six-Year Plan implementation period there were 6 graduates from institutions of higher education per every hundred of newly created work posts, while the relevant number in the past decade was as many as 27, that is 4.5 times more than in 1950 - 1955. Another eloquent juxtaposition is somewhat fewer than 200 000 graduates from institutions of higher education employed in the state-owned economy in 1955 (the close of the first stage of industrialization), which made 2.9 per cent of the total number of employees, versus more than 1 million graduates holding university degrees (8.85 per cent) in 1983. This leads one to a natural conclusion that the high pace of increase in the scale of educational results in higher education, especially over the past decade has brought about the rapid influx of graduates to all sectors and branches of the national economy and culture, effectively terminating the post-war deficiency of highly skilled personnel. Thus the 1976 - 1980 period saw the end of the skilled personnel deficiency problem in Poland's economy and culture.

It must also be underscored that the higher education system has proved to be generally successful in gratifying indvidual citizens' and the national economy's demand for university knowledge over a short 25 years. Until quite recently it was believed that the trend would continue.

It was predicted that the effects of technological advance would lead to changes in the intersector repartition of the population engaged in vocational activities, and increased standards of the population's education would be utilized in the growing sector of services. The legitimacy of these assumptions was corroborated by practical experience until virtually the late seventies. There were structural discrepancies of course, between the knowledge and skills higher education system was offering and the needs the labour market reported about some trades and available standards of education which triggered setbacks on the skilled labour market. The tensions were consequent in most cases on the higher education system's typical failure to accomodate to the changes in the structure of education, as well as to the requirements of the economy being the after-effects of the rapid advance of the technology of production. Another factor responsible for the setbacks was the distribution of educational institutions that had been formed for years then and the related supply of graduates to the local labour market that did not always fit in with the demand generated in different parts of the country by the employers. Although the discrepancies between the local educational and employment opportunities were tangible, the overall balance of demand for and supply of skilled personnel was generally favourable.

The gap between the educational capacities of university training and employment opportunities for the graduates belonging to the successive age — groups surfaced basically only after 1980, and its effects are likely to become more and more acute in the years to come. Among the underlying causes:

1. The collapse of the hitherto pace of this country's economic development that took place in mid-seventies and dramatically surfaced in 1980. It was then that the volume of production and availability of services rapidly declined, numerous economic projects were restricted or halted, foreign trade balance was adverse, and the home market suffered more serious setbacks. This is an incomplete list of the principal factors responsible for the decline in the demand for specialists.

2. The employment policy was altered, the major changes being: the reduction of the overall employment and the necessity of interregional shifts of the population engaged in work for the individual sectors and branches of the national economy, which lessened the general demand for graduates from different types of schools.

3. The economic reform was aimed at the improvement of the outlay — outcome relationships, and consequently at the liquidation of bureaucratic excesses in pursuit of economizing production costs, among other things through more reasonable utilization of the labour factor. Hence, the

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likelihood of the emergence of the need for more rational management of the available labour force resources, the desirable objective being the restriction of the total demand for highly skilled personnel.

Although the recent years have not seen significant trouble or tensions on the skilled labour market, the probability of their emergence in the years to come may not be ruled out. One could ask at this point about are the reasons for holding this view and what kind of signs foreshadow the trouble.

The major problem the labour market is already confronted with is that of proportions between individual groups of graduates from institutions of different levels of education. The problem is likely to become even more acute in the next years. As far as the specific facts are concerned, the supply of graduates from lower level schools of vocational training over the entire 1956 - 1980 period was smaller than the number of the available jobs for labourers, while the supply of graduates from upper level schools of vocational training was smaller or equal to the number of vacant non-manual jobs. Since 1980 the number of graduates from institutions of higher education and secondary schools has continued to exceed the number of available non-manual jobs. Consequently staff deficiencies have been reported about the variety of labourers' jobs. All this seems to indicate the need for the restriction of enrolment in secondary institutions and institutions of higher education with priority being given to development of schools training skilled labourers.

Another option is the possibility of vertical substitution meaning the shifting of part of graduates of upper level vocational training schools to manual jobs which has already been started, though on a rather limited scale. Another solution favoured by proponents of reforming the whole of the educational system in Poland is the establishment of compulsory general comprehensive education for the whole of the school-age brackets population, to be followed by the creation of opportunities of free choice of subsequent education or pursuit of vocational career dependent upon the learner's abilities, the current situation on the labour market, or socio-economic determinants and their specificity at the given stage of development. The actual purpose of the manoeuvre in education would be to make the educational system more flexible and improve its responsiveness to the changing circumstances and needs of the labour market. A graduate having passed through such a course of education might be better educated in the realm of general knowledge, capable of adjustment to the altered conditions, and better prepared for active involvement in public life and national culture.

Each of the possible systemic solutions to be applied in education at secondary level has its effects on higher education. Thus the latter can hardly be indifferent to all kinds of undertakings at the lower stages of education.

Likewise the future trends in the development of education and university training significantly depend upon attitudes, aspirations, motives and all kinds of patterns found in parents' and children's behaviour. These are formed by the longstanding operation of the training system, perphaps mainly by its effects. The afore-mentioned aspects of parents' and children's behaviour are most likely to play a prominent role in the future generations' decision-making on education, and should therefore be taken into account in deliberations on future educational policy-making.

III. The needs of the future. The many-year-old pressure exerted on higher education by employers in the broad sense of the term and individual educational needs of the population resulted in substantial increase in the number of its personnel and expansion of its material resources. Equally affected by the pressure have been the upper level vocational secondary schooling and other types of non-obligatory education. At present more than half of the population within the secondary school age brackets complete full secondary education that entitles them to take up higher education, and almost 10 per cent of the relevant age group population complete residential university studies. The last census showed that 20 per cent of the population over 14 years of age as having full secondary level education, and 4.5 per cent as graduates from institutions of higher education. In 1983 full secondary education graduates and those who completed studies at different types of universities made 23.38 per cent and 8.85 per cent respectively. Large part of this personnel described the use of their vocational skills as unsatisfactory or simply inadequate.

The current degree of the national economy's and culture's saturation with highly skilled personnel and the evaluation of the utilization of their qualifications provoke reflections and lead to important conclusions. The aforementioned quantitative indices regarding highly skilled personnel availability in Poland appear to be high, considering in particular, the level of the technological advance potential of the Polish economy. None the less there are certain potentialities of increasing highly skilled personnel employment rates as their distribution and availability in some sectors and branches of the national economy and culture and most of all, some parts of the country are far from perfect. The 1983 census of the workers employed in the state economy showed deficiencies of specialists holding university degrees in some types of jobs.

This appears to be a reason important enough to propose a substantial verification of the state educational and employment policies. The former needs the changing of the proportions both between the existing levels and lines of education, an also perhaps of the traditional distribution of schools, the measures substituting for a large-scale reform of the entire system of education whose start depends on the emergence of more favourable economic conditions. The latter requires the activation of the stimuli that might foster rational utilization of qualifications and proper distribution of specialists.

While employers should be more active in the pursuit of optimum utilization of their personnel's vocational skills, that could be done through the improvement of organization and management as well as the selection of directions of the development of their respective businesses.

In this context, one could predict that the oncoming 15-year period of 1986 - 2000 will see a situation on the skilled labour market different from that we had over the 25 years between 1956 and 1980.

There are reasons to believe that the skilled labour market will cease to perform the role of a stimulator of the development of the whole non-compulsory education

in the nearest future. It might be replaced by an active educational policy, and its makers should also take into consideration, apart from the economic needs, the social needs, especialy those stemming from the development of science and culture.

Я. КЛЮЧИНСКИ

Высшее образование за 40 лет Народной Польши

Автор напоминает о том, что послевоенное развитие высшего образования в Народной Польше было обусловлено, в первые годы, потребностью в квалифицированных кадрах, возникшей как результат изменений в государственном строе, демократизации общественной жизнии и огромных уничтожений, совершённых гитлеровским оккупантом во всех группах интелигенции. Именно тогда были приняты генеральные программные и системные решения, касающие высшего образования в Польше. До сего времени можно видеть последствия и результаты этих решений, несмотря на значительные усилия в деле совершенствования и модернизации высшего образования и несмотря на изменения вытекающие из общественно-экономического развития страны.

В результате за 40 лет Народной Польши больше 1,5 миллиона человек получили высшее образование. Из этого числа в обобществленном секторе народного хозяйства работает в настоящее время больше I миллиона человек (учитивая убыли), что составляет 8,85% всех принятых на работу кадров. Это значит, что экономика и национальная культура достигли, в принципе, состояния желательной насыщенности кадрами с высшим образованием.

В настоящее время предпринята работа по подготовке долгосрочной программы перспективного развития высшего образования в Польше. Эта работа касается также низших ступеней образования, особенно концепции все-

общей средней школы. Имеет место общее убеждение в том, что модель системы образования в Польше потребует в недалеком будущем существенных корректив.

J. Kluczyński

La enseñanza superior en el cuarentenario de la Polonia Popular

El autor recuerda que el desarrollo de la enseñanza superior en la Polonia Popular, en el período de posguerra, ha sido condicionado en los primeros años por la necesidad de contar el país con el personel docente calificado, debido al cambio del sistema político, democratización de la vida social y las enormes pérdidas humanas ocasionadas por el agresor nazi en todos los grupos instruídos, pertenecientes a la clase media. En aquel tiempo fueron tomadas las decisiones generales básicas tanto para el programa de estudios como para el sistema sociopolítico, concernientes a la enseñanza superior en Polonia, cuyas consecuencias siguen siendo vigentes hasta hoy día pese a los cambios debidos al desarrollo socioeconómico del país y anuque fuerón adoptadas varias medidas para perfeccionarla y modernizarla.

En resultado, en el cuarentenario de la Polonia Popular más de un millón y medio de personas cursaron los estudios en los centros de enseñanza superior, de las que más de un millón, descontadas las pérdidas, trabajan en las distintas ramas de la economía estatal, lo que constituye un 8,85% del total de todos los empleados. Esta significa que tanto la economía como la cultura nacionales han alcanzado el nivel que cubre la demanda de empleados que tienen completadas ras carreras universitarias.

Hoy día se están Uevando a cabo los trabajos relacionados con la elaboración del programa del desarrollo de la enseñanza superior en Polonia, un programa de largo alcance. Dichos trabajos abarcan también otros niveles de la enseñanza, ante todo el concepto de la enseñanza media (secundaria). Se opina que el modelo que rige actualmente el sistema de educación en Polonia, tendrá que ser sometido a correcciones considerables en el futuro.

KLUCZYŃSKI Jan, Professor of Economics, engaged in the studies on planning and economics of education, Director of the Institute of Science Policy, Technological Progress and Higher Education, Chairman of the Group of Experts for Planning the Development of Higher Education in the Socialist Countries, editor-in-chief of the socialist countries' quartarly "Sovriemiennaya Visshaya Shkola", member of the Advisory Board of UNESCO's Centree Européen Pour l'Enseignement Supérieur (CEPES), in Bucharest.

Życie Szkoły Wyższej 1986

Research and Teaching in the Academy of Social Sciences

by

JAREMA MACISZEWSKI

The Academy of Social Sciences has entered the third year of its existence in a new organizational form[1]. Experience has proved that the form has provided a structural and factual unity of research and training and has contributed to a fuller and more effective management of various units of the party's theoretical resources and has increased the influence on the whole sphere of social and humanistic sciences in Poland. In some areas of research and training the Academy of Social Sciences has not only been meeting the definite needs of the party and all its units, but has virtually become a center which has concentrated and to a certain extent co-ordinated the activity of Marxist research workers in various scientific institutes in this country. This particularly applies to the study of religions, history of the workers' movement, empirical research on the working class's conditions of life and work, research on agricultural policy and finally — theoretical and empirical studies on the party itself, its composition, structure, methods of action etc. This, obviously, does not mean that there are no other branches of social sciences in the Academy with their individual achievements proportionate to the personnel potential and each being of a specific character. I think that we are on the right course to achieve a unity of theoretical reflection with practical needs. Let us take for example fruitful research of our economists in the Komuna Paryska Shipyard: their detailed findings can help to solve concrete problems in the enterprise and become a basis of numerous scientific generalizations which may prove useful in finding systemic improvements for the whole national economy. On the other hand, the accomplishments of the Institute of Philosophy and in particular the success of our periodical Myśl Marksistowska which has become one of the means of integration of the Marxist philosophical millieu, especially that of the young generation, have confirmed the diagnosis on the growing cognitive needs of society and interest in Marxism. The accomplishments and potential of the Academy have been substantiated by international symposia and conferences mainly held among the research workers from the Academy of Social Sciences and institutes or party institutions of higher learning of the Central Committees of the socialist countries. The important part of our Academy's activity is a varied co-operation with these research and teaching institutes, particularly with the Academy of Social Sciences of the Central Committee of the Polish United Workers' Party. This co-operation has constantly been enriched.

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[1] These are excerpts from the opening address delivered by Professor Jarema Maciszewski, Rector of the Academy of Social Sciences at the ceremony opening the new 1986 - 1987 academic year.

The tangible scientific accomplishments of the Academy's workers — today there are 300 of them including 250 full-time staff members — are 60 books published last year, nearly 500 problem papers, numerous symposia and scientific conferences, papers and reports, expertise and sources. What should really be emphasized is the active participation of the Academy and its workers in the preparatory work for the 10th Party Congress; the program of the Congress, I believe, has contained a substantial contribution of the Academy's members.

One can elaborate on the achievements for a long time, but there is no need to present the whole list here. What has been achieved is, above all, and I would like to approach it in this way, a proof of real possibilities to intensify our work, to remove essential weak spots or just neglect, to move forward along the path traced out by the resolutions of the party leadership which brought the Academy into existence.

The studies of any manifestations of social life, timely recognition of trends and tendencies, both positive, creative, developmental as well as negative, reactionary and harmful are of utmost importance for our party, for the improvement of its leading role in the state, a leading one in our society and a disposable one toward the working class and the nation. The problem is not only to produce scientific diagnoses, however useful they may be, or even more so — to produce an onlooker's criticism, but primarily to bring up proposals of constructive action, systemic or functional alternative solutions with their expected short- and long-term effects. Generally we are conscious of the objectives, we know what has to be done, but we do not always know how to do it.

A really important task, and this should instil new quality into our work, is to produce quick expertise ordered by the party leadership or on one's own initiative, sometimes of a signaling character before the completion of the research cycle. It often happens in social sciences that research findings become obsolete much too quickly and at best they can remain as a valuable historic material. Our research on society's material existence as well as its consciousness must quickly and efficiently be translated into practical action, present and future needs. Besides, research findings, particularly those including forecasting elements, must sometimes be prepared ahead of time. However, to prevent the speed and efficiency to adversely affect the high quality requirements and the sense of political and scientific responsibility, it is necessary to constantly improve the research workshop, to modernize the methods of scientific perception, to overcome routine and idle copying of the truths already discovered, to fight platitudes often disguised in sophisticated scientific terms, to promote scientific criticism.

The resolutions of the 10th Party Congress and in particular the party program should be the most important inspiration to take up research in the Academy. Many program elements require a theoretical development and expansion. This applies to virtually all spheres of social life. Hence, all the Academy's research plans have been supplemented and enriched with problems resulting from the congress resolutions. We have also made personnel and organizational preparations to carry out quick studies of public opinion, especially that of party members, within the subject matter recommended by the party leadership or following the Academy's research program. An institute of personnel policy research is being set up.

In all fields of our activity, life has made us ask ourselves questions the correct answer to which will more and more often be formulated on the basis of scientific research and less and less frequently on the basis of intuition, impression or unauthorized generalization of individual phenomena.

Here is a random example. Each political activist, each teacher and educator has faced a situation when even the most plausible arguments fall on deaf ears.

Why is it so? What makes it that some elements of our educational, ideological or persuasive work prove ineffective? Why do some thinking and behavioral stereotypes prove tremendously vital? Why, in turn, are others affected by positive changes?

It does not have to be substantiated that the correct answers to these and similar questions are of real importance to the practical activity of our party and all educators.

Perhaps the coating of even the most justifiable contents proves wrong, obsolete, boring or resentful in mass communication? Perhaps we have not learned to take full advantage of the beauty and wealth of our mother tongue as a substance of the difficult part of persuasion and argument, of conveying just reasons and evoking noble emotions?

I direct these questions to the workers of the Institute of Social Psychology and the Theory of Propaganda and particularly to the section of rhetoric whose role in the process of a political activist's training must increase and to all of us as teachers and party activists.

Various sets of similar questions, which could make a rather formidable research questionaire, may indeed be put to every institute, to each research team. It is quite certain, and I would like to stress it, that while looking for answers to them, we have to resort more and more often to interdisciplinary solutions, to use methods specific of various disciplines, to see in practice and not only in theory the dialectical interdependence of phenomena.

Whithin this area, in the sphere of fuller integration of individual institutes and departments of the Academy in the research and teaching process there is still a lot to be done. The Academy must be a uniform whole and not only a simple sum of individual organizational units. We talked about it quite extensively during a meeting of the Academy's leadership a few days ago and also drew conclusions from individual party conversations as well as postulates and propositions put forward during the pre-congress work.

Dear Comrades.

Our Academy tries to continue the commendable accomplishments of the party higher education in training personnel on a higher and postgraduate level. The last year added some significant achievements: the Academy graduated 256 students of the first and second higher education level. Of particular significance, however, was the development of postgraduate and doctoral studies as well as scientific practice for assistants and lecturers from other institutions of higher learning, habilitation practice, a few-month courses etc. We ran 10 postgraduate courses of different type and profile. Altogether 558 people completed various forms of postgraduate and regular course training. Doctoral programs have been developing successfully, both intra- and extramural, embracing more than 300 persons. In the new academic year, we will train more than 3000 students on various levels and in different way. This will also include a new postgraduate foreign service course organized jointly with the Ministry of Foreign Affairs and a one-semester course for state and co-operative farm management personnel as well as agricultural service staff. The Academy's branches in Bydgoszcz and Katowice have been growing in strength organizationally and programatically under solicitous care of regional party committees. Consultation centres in close touch with regional and inter-regional party schools have been playing a substantial role in the process of training. It is the Academy's opinion that it should maintain close ties with the whole system of

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party education and training and help all its institutions in any way it can.

As for the structure of education and training, we are now in the process of gaining experience. The conclusions will help the Senate and the party chapter at the Academy to present to the party leadership adequate motions concerning the further improvement of forms, methods of structure and volume of training at the higher and postgraduate level. For example the enrollment system and criteria in such departments as the study of religions or broadly conceived study of cultures require a new approach; both these scientific disciplines, so important from the practical point of view, must develop systematically and intensively and continue to expand the scope of their influence.

The requirement to critically assess one's own style and methods of work fully applies to our educational and training activity. We should keep enriching the program content of our lectures, seminars and classes as well as our teaching methods. There is a lot of routine and specific conservatism in many of them and numerous shortcomings result from the shortage of teaching means. We should focus our attention and put in a lot of effort to modernize the teaching process in the new academic year.

The character of today's meeting is not conducive to mentioning the material conditions of our work. As for the outlays on research, the situation is fairly good the more so since the Academy co-ordinates three centrally controlled research subject matters and participates in others. The salaries of the Academy's workers, particularly those of the teachers, are relatively not bad. In other areas, however, the situation is much worse and there are some where the problems are really acute. We will try to solve many of them on our own and as for other problems — we hope the party leadership and Warsaw authorities will be helpful. Nevertheless, there is no doubt that regardless of the difficulties and material shortcomings, we will do all our best to avail ourselves of the tasks.

Our Academy is becoming an important component of the party's life. It is also becoming a significant educational and research institution among Polish universities and an essential element of contemporary Polish intellectual life of an unambiguous political, ideological and methodological character.

The formation and development of the Academy of Social Sciences of the Polish United Workers' Party is going on. It has been relying on the accomplishments of its predecessors: the WSNS (the Institute of Social Sciences) and the IPPML (the Institute of Fundamental Problems of Marxism and Leninism), on the experienced longstanding personnel of these institutions and an increased conceptual and organizational effort of the Academy's founders. I hope you will excuse my personal tone, but as the rector of the party institution of higher learning I have the honor, for the first time, to take the floor at the opening of the new academic year. So let me express my deep regard for all these comrades who have contributed to the creation of the Academy. And I think it will not be inappropriate to mention here the name of the former WSNS rector of long standing Professor Władysław Zastawny, present here today and the first rector of the Academy of Social Sciences — Professor Marian Orzechowski.

So may continuation and development, cherished tradition and pioneering effort, awareness of accomplishments and their criticism be the beacons of our activity in the new academic year.

Я. МАЦИШЕВСКИ

Лучше служить обществу и партии

В своем выступлении по случаю начала учебного года автор обсудил достижения Академии Общественных Наук за минувшие годы, а также её задачи в будущем. В некоторых областях исследований и обучения Академия обеспечивает обслуживание конкретных нужд самой партии, а кроме того является центром, сосредоточивающим и координирующим деятельность исследователей-

-марксистов из других научных центров страны. Академия намерена инспирировать и вместе с тем контролировать формы обучения и идеологической учёбы партийных и административных работников.

J. Maciszewski

Servir mejor al pueblo y al partido

En el discurso pronunciado durante la inauguración del año escolar-académico, el autor habló de los logros de la Academia, como también definió sus tareas para el futuro. La Academia en cuestión, en algunas esferas de investigaciones y enseñanza, cubre la demanda concreta del partido, así como desempeña el papel de centro científico que agrupa y coordina la actividad de los investigadores marxistas de los demás centros científicos del país. La Academia quiere inspirar y supervisar las formas de instruir y educar ideológicamente a los activistas del partido y de la administración.

MACISZEWSKI Jarema, Professor of Warsaw University, historian, Rector of the Academy of Social Sciences, member of the Diet, ex-Chairman of the Commission of Education and Schooling, Science and Technological Advance, Chairman of the Polish Group of the Interparliamentary Union, Member of the Union's Board.

Życie Szkoły Wyższej 1986

The Contribution of the Humanistic Sciences to the Shaping of Social Attitudes in People's Poland

by

JÓZEF ANDRZEJ GIEROWSKI

The current year, that of the 40th anniversary of People's Poland[1], is a good time to consider the role and place of science in our society. Gone is a complacent approach to what was achieved in this field during those 40 years. At the same time we are more cautious in evaluating, in censuring all the achievements by going to extremes and try not to be onesided and overdoing in questioning the values of many research initiatives regarless of their real accomplishments. In fact, depreciation of all achievements in the long run results in similar effects as their full apology. Both do not contribute to a balanced assessment. It is a commonplace that the development of science to a large degree depends on the ability to properly assess its present position, to perceive its real achievements as well as its shortcomings. This is so because achievements usually become a stepping stone for further research which helps to keep the level of science going up and hence our ability to understand the world around us, while shortcomings point at those fields without whose development consistent knowledge would be unimaginable. Each scientist is aware, or at least should be aware of the limitations of his research and his acquisition of knowledge, of his place in the general development of his branch of knowledge or science as a whole. Scientists who make decisions or help to make research line decisions should also have this awareness. Undoubtedly, while making such evaluations, scientists come under some social pressure and are more or less immersed in the climate of assessments and opinions prevailing around them. The problem is to avoid making the decisions when emotions run high and rational attitudes are in retreat to minimize the impact of side issues.

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[1] The paper was written in 1985.

The problem is particularly essential for the humanistic sciences, that is a set of sciences dealing with man with his psychological properties and the resulting individual and group activity. It is well know that the humanistic sciences, to an extent larger than the exact or biological sciences, are exposed to the influence of side factors which can sometimes distort them substantially. Also to a larger extent evaluations concerning them are imbued with a subjective factor. Nevertheless, it does not exempt one from making such evaluations.

One might expect that such a location of these sciences will take place during the coming 3rd Congress of Polish Science[2]. This time, however, we shall not be dealing with all achievements of the humanities, but only with one field of their impact on society. It also has to be added that the humanistic sciences as pursued in institutions of higher learning can not justifiably be separated from those carried out in other institutions, the Polish Academy of Sciences included. A lot of research is performed collectively and often by the same people under different signs. So we shall deal with the humanistic sciences as a whole to the exclusion of education problems although it is through school that the humanities can substantially shape attitudes. This, however, would certainly go beyond the envisioned scope of this paper. Only one aspect of the humanistic sciences development will be dealt with here, namely their impact on society, a fundamental task in fact, through the presentation of research findings in order to help people to understand problems they face and to solve them. From the very nature of these sciences, these are problems linked with man's needs, his activity, his search as an individual and a member of a social group for his proper place within all those transformation and development processes affecting him. It is by emphasizing and illuminating the significance of the human factor in all fields of institutionalized activity that the humanistic sciences can play a particularly essential role of a social need cathalyst if, obviously, they have lived up to this role. They sometimes prove hamstrung through no fault of theirs. At any rate, the humanistic sciences should actively approach society.

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[2] The 3rd Congress of Polish Science was held on 5 - 7th March 1986.

The development of the humanistic sciences in People's Poland has been based on several elements which determine their standard and involvement in research activity. Here are the most important ones. The first is the tradition of these sciences. It just happened, mainly due to the lack of state sovereignty in the 19th century, although not only for that reason, that the humanistic sciences enjoyed the greatest development opportunities in this country and followed national needs most closely. Exceptional significance in all endeavours to regain the sovereignty and independence was attributed to them. Hence, the representatives of these sciences were taken great heed of and the scientific thought represented by the greatest minds of the day stimulated and shaped national attitudes. This tradition has been with the humanistic scientists to this day. This is so because a large part of society expects them to keep playing a similar role. And what brings disappointment is the ambiguity of solutions, so frequent in the humanities, or immersion in partial research, indispensable for the advancement in science, but reducing the potential of exerting wider influence on society. Thus in our society the humanistic sciences have rather commonly been burdened with a time-sanctioned approach the departure from which beeing treated almost as a desecration of national values. On the other hand, great achievements of the forerunners, their research lines or findings have been imposing the style of work and the scope of research on many a scientist of today.

The second element which showed great vitality in the late 1940s and 1950s was the advent of Marxism which then became the main, if not the only, methodological foothold for a growing number of research workers and the resulting assumptions served as a basis for forming research tasks. The outcome was, particularly at the beginning, that the research tradition of individual fields was treated very selectively by trying either to refer to former research based on Marxist methodology, or to those scientists or schools which were close to general assumptions of Marxism. Marxist interpretation within the humanistic sciences emphasized the importance of the economic factor or, strictly speaking, the socioeconomic one underlying all other activities (the problem of the base and superstructure), the system of class relations, the need to give priority to fundamental task of building a new socialist society at the cost of immediate, sometimes urgent, problems. As the knowledge of Marxism deepened and the ability to employ its research propositions spread, a more open-minded approach began to gain ground. The dogmatic interpretation was gradually substituted by a more versatile one, more responsive to the complexity of social phenomena. While remaining a factor which specifically affected the humanistic sciences development, Marxism conceived of this way has not given up a dispute with the formerly discarded elements of research tradition, or at least part of them, but also has created a better ground to produce synthetizing formulations of achievements of various schools and research lines.

The infusion of the humanistic sciences with Marxism was accompanied by their taking on a more general, a supranational, so to say, character. The process, following integration trends in world culture in the second half of the 20th century, manifested itself in the growing contacts with world science. The war stopped or significantly limited these contacts and then it took a long time to resume them. Initially the co-operation embraced Poland's immediate neighbours, the Soviet Union in particular, then without neglecting it and even strengthening it, it was extended to other countries. In the 1960s the co-operation proved extremely inspiring with representatives of the humanistic sciences in France, the famous Annales school specifically, which exerted an essential influence on the whole generation of Polish humanistic scholars. Then the centre of gravity shifted to English-speaking countries and the co-operation covered almost all European countries. It is worth mentioning that the Polish humanities have adversely been affected by the lack of stronger ties with Asia, Africa and Latin America. It has resulted in an excessive preoccupation with Europe by the Polish humanistic sciences which has led to a relatively modest contribution of the Polish humanities to the formation of the sense of world community. It has produced a phenomenon which may prove dangerous to the future of the Polish humanistic sciences: it was not by chance that one of the leading scientific institutions in this country has recently found as marginal the anniversary of Bronisław Malinowski, one of the most prominent representatives of the Polish humanistic sciences in this century, who managed to overcome the provincial preoccupation with Europe. Keeping these shortcomings in mind, one has to acknowledge these international contacts of the Polish humanistic sciences and the resulting methodology and research problem inspirations as a permanent prerequisite of Polish humanistic science development.

Even if each of these three elements manifested itself in sustaining its separate undercurrents, they permeated each other and tended to form one whole. The high level some branches of the Polish humanities achieved in world science has resulted from these tendencies. The ability to join and unify these elements which helps to give a universal character to solutions resulting from the characteristics of Polish society is of importance for the problem under discussion here too: how the humanistic sciences in People's Poland affected the shaping of social attitudes.

What is understood by social attitudes? It is a system of convictions, evaluations, inclinations and motivations concerned with matters affecting large social groups with public affairs. Attitudes towards such social "objects" as work, health, education, religion, science, power, politics etc. can be singled out. Following the stand of the majority of Polish sociologists and psychologists, we can discern three elements in the notion of attitude whose existence makes it possible to state that a definite attitude really occurs as a social phenomenon. The first is to take one's bearings in a social, political or cultural situation affected by the attitude. It is not essential whether this orientation is true or false. It just has to be accepted by the decisive majority of a given group and considered correct. To put it differently, it will be an involvement of the intellectual, cognitive factor. The second, equally important element, is the emotional involvement which manifests itself in personal attachment to a given matter and at the same time in a sense of importance of one's role and joint responsibility or attachment to some values or a hierarchy of values. And the third element, which somehow results from the former two, is the fact of being ready to behave in a definite way mainly by putting group or society interests above private ones. This necessitates sacrifices in the interest of the above-mentioned values. The first two elements deal with the sphere of individual or group consciousness, the third underlies action which best reveals the true attitude.

Thus it is evident that the humanistic sciences play an important role in shaping social attitudes whether they do it intentionally or unintentionally. This is so because they participate in shaping, particularly in taking the bearings and in creating value hierarchies. Emotional impact aside, which in the case of the humanistic sciences may relatively be strong due to proper stylistics, material arrangement, or even playing some facts or phenomena up while playing others down, of specific significance is the cognitive effect, that is providing a set of information to shape one's view of a given matter or problem, or even suggesting the entire orientation.

In the history of the Polish humanistic sciences of the past 40 years there was no shortage of conscious shaping of attitudes, in a sense — planned, which was to cause some definite social reactions. It was linked with the line of research and accepted methods. However, it does not mean that these inspirations were uniform since they originated with various scientific, political, social or cultural centres or groups. The goals of these inspirations were not always convergent and their intensity was different in different periods.

What values and attitudes were involved? First of all, they were connected with changes in the shape and character of the Polish state. While sustaining the attitudes which became strongly manifest among Poles during the last world war, particularly the self-sacrificing patriotism and the sense of civic responsibility, that is a deep involvement in the problems concerned with the existence and development of the nation and the state, or even exploiting them, it was of utmost importance to affect the formation of ties with the newly settled territories among a large part of society or Polish people living there for centuries — a sense of state unity with the whole Polish nation. It was a starting point to produce an attitude responsive to the needs of the changed state. Those who remember those times know how difficult the task was and with what uncertainty people viewed the state of things which now the generations born in People's Poland consider natural and unquestionable.

The task was even more difficult as the change in historical consciousness and attitudes toward one's own past was simultaneously accompanied by the need to gain social acceptance of the new political and legal system which was to build socialism. There was a need to shape attitudes towards fundamental assumptions and ways of action resulting from the socialist doctrine and to make these attitudes match the changes being in progress. The most important was the problem of the relations between individual strata or classes in view of their changing political and social role, specifically as the working class came to the fore. In the society where, at least initially, the working class was not numerous enough and then, due to the rapid growth, it lacked uniform attitudes, where, since time immemorial, the leading role had been assumed by the intelligentsia which inherited many (though not all) attitudes from the nobility, the shaping of attitudes that would match the new system of forces was an extremely hard task to perform. Attempts to modify the approach to the peasant, his work and position in society in view of persisting old sentiments and the lack of a consistent rural policy were running into other obstacles. Each time a double change was involved: to produce in the whole society attitudes adequate to the position and possibilities of a given stratum and to evoke in the very stratum civic and social attitudes compatible with the role it was to play under new circumstances. One could also expect that as the Polish state lost its multinational character, attitudes of resentment towards ethnics would wane and disappear. However, hey proved to die hard. Meanwhile, the problem of a live-and-let-live attitude towards all that is different either in the sphere of the nation, religion or culture was of crucial significance for shaping humanistic attitudes in Poland.

Another problem was the impact of cultural and educational changes, free access to education in accordance with the abilities and interest for all strata and the bringing of cultural achievements within reach of the ever-wider social audience either through specially designated institutions or enlarged mass media. The intention was to produce open-minded attitudes, abilities to absorb cultural values, and participation in their formation among those strata in particular which formerly had a limited access to these phenomena. These cultural values were commonly believed to become something special, something really important for everybody.

It would be an exaggeration to maintain that the humanities, even if one points out their role in education, managed to shape such attitudes on their own. However, they could either co-operate in their formation or concentrate on issues that were neutral towards these transformations of consciousness. In fact, there were no such hesitations and one may say that, following the tradition, the Polish humanistic sciences tried to win a leading role in the process of adjusting national consciousness to prevailing changes. All the same, it should be borne in mind that there were factors which hampered this activity. First of all, humanists themselves were not only a subject but also an object in the process and the sense of criticism characteristic of each real scholar often staked out the boundaries of action. Moreover, due to side considerations, there was not always a convergence of goals and methods of action. Internal contradictions often cropped up in the proposed system of attitudes, whereas there should be internal coherence if we want the attitudes not to be a make-believe.

Besides, Polish society developed deep suspicion, prejudice, distrust and disbelief in the Polish humanistic sciences. There were various reasons for that. First of all, research methods, ways of information selection and arrangement cannot be put into such clear-cut and consistent frames as it is true with exact sciences. Parenthetically speaking, attempts to introduce these methods to the humanistic sciences have rather rarely been scientifically fruitful, most frequently so when applied to some aspects of phenomena under study, while failing to clarify some basic doubts. Anyway, there has been some lingering distrust of methods used in the humanistic sciences which makes people less ready to accept research findings. Hence comes an inclination to discard all breakthrough interpretations or any interpretations that do not agree with the scope of knowledge acquired by the recipient. There has also been a deep ignorance of trends or just development potential of the humanistic sciences. The claim that new data may substantially modify old statements and that there is a wide range of findings that do not prove permanent falls on deaf ears. To put it another way, reading, let us say, a book by Szujski and a book by Topolski the reader will not understand why he should lean towards the wordings of the later and not the earlier historian. His doubts will be so much bigger when the older historian proves to be an outstanding stylist who can appeal to a century younger reader. Under such circumstances it is not clear who will be more successful in shaping social attitudes.

There is another difficulty involved. The humanistic sciences do not represent (and it is good they do not) a uniform research line. One can find there a variety of interpretations of the same or similar phenomena and a miscellany of stands. The humanities are pluralistic in their views and interpretations and that makes them develop. What is indispensable for research workers, however, may restrain the influence of the humanistic sciences on society as a whole. Undoubtedly, the richness of the choice may suit public needs (although the problem is somewhat complicated), but it also gives rise to suspicion that the differences result from some research manipulations. This is not conducive to a positive evaluation of progress in the humanistic sciences on the part of non-

-specialists. Finally, freedom of expression is also of importance here. In the humanistic sciences it carries a special weight: freedom of expression of one's views often presupposes its value, but it is just here that restrictions are easiest to find. Things were different in that matter over the last fourty years. There are branches of the humanities which have not faced any major obstacles, but there are also some where the lack of freedom of expression just makes it impossible to win the reader's confidence. An this is the prerequisite of any successful exertion of influence. Last but not least, an extremely long book-production process (today it often takes three to four years to bring out a book in this country) substantially reduces the influence on the reader, particularly in those branches of the humanistic sciences which closely deal with the present.

All these reservations have to be supplemented by a very essential one. Research findings of the human sciences as such may reach only a limited audience with adequate intellectual, sometimes specialized background. This greatly reduces immediate influence possibilities. The moment the findings are intended to reach wider circles, they usually undergo some processing, and it is good if it is made by the same scientist and author and not by other science popularizers, otherwise there is a risk of excessive simplifications and vulgarization of ideas which results in smaller efficiency in exerting influence on society. It has been claimed lately that in contrast to, let us say, scientists and humanists of the first half of the 20th century, those of the second half have been representing such kind of hermetically sealed humanistic science, so much in the grip of formal requirements and soaked with so many indigestible terms (eg. economic ones) that the prevailing part of humanistic works are not fit to read today and is thus inaccessible to an average reader even generally prepared for such a reading matter. The charge is only partially true. In fact, there are fields of the humanistic sciences where the notional system requires a special philosophical, sociological or economic background. Similarly, increased heuristic requirements impose the mode and scope of using factual material. The crux of the matter is, however, that relatively few of our humanists are endowed

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with an adequately generous literary talent. This does not mean that there are none, and starting with the most prominent, Alexander Krawczuk. I would list only in the field of history at least a dozen or so scientists whose works are widely read also due to their literary standard. But the humanities is not the only field where literary talents do not abound. So the problem is of a wider character. Hence it will suffice to say that in contradistinction to commonly held beliefs, many humanists consciously attach great importance to how their ideas are expressed.

Besides, it has to be added that the humanistic sciences can function in social consciousness in a double way. It is a specific humanistic dichotomy which can be reduced to historism and presentism. To put it another way, while affecting attitudes, the humanistic sciences can either refer to the past to seek patterns of behaviour or solutions, or to give priority to the analysis of the present state of society, groups or individuals. The dichotomy is all the more pronounced since, due to various reasons, the historical sciences in their research often stop short with the events that happened at least 30 years ago and very rarely, in a limited way and haphazardly, deal with more recent times which are studied primarily by political scientists, sociologists and psychologists. This pattern is broken perhaps only by some historical studies concerned with culture, particularly by the history of literature and art. This does not seem a normal situation. For instance in the prewar period the historical studies were much closer to the present as is the case with most European countries. The result is obvious: the lack of links between these two approaches produces a gap filled up with non-scientific stuff. Under such circumstances it is hard to expect that historical persuasion will do much since its strength comes from close ties with the present. If one takes into consideration the fact that research on the 20th century (after World War I) did not gain momentum until the last 15 years, there is no wonder that scientific achievements in this field are particularly small and that publicist interpretations or just myths are in full sway here.

Almost the same holds true for the political sciences, sociology or psychology. After all, these are relatively young sciences marred with both excessive expectations and scathing disappointments. Besides, the research findings of these sciences cannot always reach wider circles and the very studies are of a too random character to produce required generalizations.

With all these reservations, one should not play down the role of the humanistic sciences in shaping social attitudes in People's Poland. It is worthwhile to bring at least few examples without aspiring to exhaust the subject, which by itself would require thoroughgoing research.

Here in Pomerania it seems fitting, first of all, to emphasize the role played by the historical sciences in shaping attitudes towards new Polish borders established in 1945. Regardless of prevailing feelings concerning these changes, historians very early started research on the history of the Regained Territories aimed at coupling the historical past of that land with the history of Poland and instilling them into historical consciousness as a factor forming national consciousness and the sense of state unity. It was possible to refer to former historical studies or works produced during the war (eg. by K. Piwarski). Strenuous work began to build up a required historical workshop, then to make first historical outlines of places, regions or whole territories. These endeavours were crowned by the preparation of a broad synthesis of the history of Silesia and Pomerania. The fact that they have not been completed yet is another example of how research on the 20th century has been lagging behind. These works performed jointly by large research groups contain a heavy load of new contents that help to reassess many approaches and interpretations of the older historiography. It is a classical example of studies that broaden the frontiers of historical consciousness. It is not that these works can exert their influence directly since they make difficult reading as most collective works in the humanistic sciences do. Nevertheless, they are a summation of the research carried out so far and a stepping stone for publications to come, both scientific and popular, which strengthen ties with a given place or region. To sum up, this whole large effort made by historians mostly from Silesia, Pomerania and Poznań spread the knowledge of the past of these territories and created an indispensable base to solidify attitudes expressing the merging of these lands.

There is more to that than meets the eye, however. It is the entire attitude towards one's own past and the resulting approach to the present. Polish historical consciousness is full of painful and unhealed sores. There are matters which can freely and rationally be discussed, but there are many which can be touched only very delicately if one wants to succeed in opposing the prevailing myths and legends. What has been left of the supercriticism of prewar Poland which was in full swing in the 1950s? Who can find equilibrium between appreciation of romantic outbursts of the 19th century and the understanding of ardous "organic work" or "work from the foundation"? And these are emotionally charged things in the process of shaping attitudes towards tasks that Polish people face today. No historian is immune from such misgivings when dealing with such subjects.

Nevertheles, it would be a mistake to refute changes in this respect that have been affecting Polish people's attitudes. For instance, the idea of the Polish peasant as the past-determining factor in this country, who proved to be a pillar of national existence during the partition of Poland, has been gaining an increasingly wider acceptance. An although some prejudices in the relations between urban and rural dwellers still persist, the approach to the peasant's role in the past has undergone a complete change. Reliable research on social stratification, the position of individual strata and their role in the vast process of formation of the modern Polish nation imbued the historical consciousness of the majority of Polish people with an image of things much closer to the reality than old interpretations did. The research findings presented in many different textbooks, synthetic approaches, sometimes even in popular publications contributed to the new understanding of history by Polish society. There is no need to add that it also contributed to the shaping of more open-minded attitudes towards any social changes, even those which took place in People's Poland.

One could also bring back various examples of political and social thoughts from the past, beginning with the Renaissance with Frycz Modrzewski in the lead and continuing with great political writers of the Enlightment till more recent ones. Various studies in the history of literature also followed this direction and unearthed many long-forgotten or overlooked trends in Polish literature making it more multicoloured than before. This provided better conditions to kindle literary interest among growing numbers of readers, to produce new attitudes towards culture through the very literature. Without exaggerating possibilities of direct influence of this research (particularly in the period of unusually persuasive mass media), it is hard not to notice that studies and search of this type had to be an initial stage of a new stratification of literary phenomena, or more broadly — culture.

It would be far more difficult to establish the scope of influence of those humanistic sciences which deal with present-day man. I would like to concentrate on the role of two relatively youngest sciences: sociology and psychology. With the latter I shall use information received from assistant professor Zbigniew Nęcki. The research carried out by these sciences elucidates the "condition of man" in contemporary society and helps individuals and social groups to develop self-understanding and better assessment of surrounding phenomena. The knowledge obtained through these studies aids representatives of these studies in prompt interference in interhuman relations, eg. in working places, or in making surveys which may prove useful for the whole society and in shaping its attitudes if, of course, it is transmitted to the large public. Such expertise was offered by sociologists, eg. J. Chałasiński in 1956, who analysed the reasons for workers' behaviour or later on J. Szczepański, who prepared *The Raport on the State of Education* or lately H. Kubiak, who supervised a survey on the analysis of Polish political and social crises.

Psychology goes through similar problems. There we can see a growing trend of seeking practical applications beside theoretical studies. And in just such a dichotomic way contemporary psychology tries to spread partnership relations based on humanistic values where the selfish use of physical, psychological or material advantage is treated as a factor destroying interhuman relations and personality. Psychologists' research and practical activity are intended to improve man's condition beyond material and standard-of-living aspects. Transformations in psychology's theoretical assumptions, the shifting from biology-oriented ideas to social and cultural ones result in the fact that the awareness of participation in attitude formation rests on much more solid foundations than before. The psychological sciences have developed theoretical bases of "intervention" into human psyche and methods of diagnosing even very subtle mental states. Research on social pathology problems, on alcohol, drug and medicine addiction, on devil-may-care attitudes or neurosis-generating elements of human environment breaks ground for preventive measures to eliminate the most negative aspects of social life. A lot of effort is put in to make these actions as socially efficient as possible.

Unfortunately, adequate methods are not available to determine if a given action bears social effects or if it has no influence whatsoever on what is going on in the social reality. Action in the sphere of consciousness, personality or psyche — and that is what we have been talking about — does not lend itself to control easily. An indirect indicator is an increase in the demand for some actions or publications. And a direct indicator is the growth of social consciousness, a higher approval of human dignity, a decline in conservative trends in various walks of social life and the appearance of attitudes more responsive to irreversible changes in social life.

Without predetermining the scope of influence of the humanistic sciences on the shaping of social attitudes, one must add, however, that it is a grave misunderstanding to charge humanists with a divorce from ever-day problems, from problems common people live with. It is also wrong to treat scientists as socially immature, who need to be constantly brought up. A typical contemporary scientist does not retire into the shell of narrow specialized studies, whose only aim is to expand the knowledge and to pursue the truth. While not discarding the need of such an approach, it is necessary to state that the majority of humanists are people deeply involved in problems of their times, who desire to help society to find its way in the maze of present-day life, who try to convey their knowledge in a variety of ways and to contribute to the

formation of society which would be better, more aware of its tasks and goals and living up to our national aspirations.

Ю. А. ГЕРОВСКИ

Участие гуманитарных наук в формировании общественного облика гражданина Народной Польши

В статьи автор обсуждает достижения гуманитарных наук в Народной Польше, показывая их роль и значение в формировании общественного облика польских граждан. Гуманитарные науки соучаствуют в формировании общественного сознания, особенно в приобретении ситуационного распознания, а также в создании иерархии ценностей. О каких ценностей и личностях была речь в истории польской гуманистики в минувшем 40-летии? На этот вопрос автор отвечает подробно называя в частности такие факторы как: изменения в форме и характере польского государства, перемены в области культурно-просветительных явлений, распространение обучения и.т.д. Согласно традиции польская гуманистика старалась обеспечить себе почетное место в процессе приспосабливания национального сознания к происходящим переменам. Это не означает однако, что не выступали факторы затрудняющие это воздействие. Прежде всего сами гуманисты были не только субьектом, но и предметом в этом процессе. Свойственный же каждому добросовестному ученому критицизм намечал неоднократно границы действия Есть также и другие барьеры влияния гуманитарных наук на систему личностей и убеждений граждан. Указать можно некоторый недостаток доверия к методам применяемым в гуманитарных науках, недостаток однородного исследовательского направления, плюрализм взглядов и интерпретаций ограниченная группа непосредственных потребителей результатов гуманитарных исследований и.т.д. Надо кроме того

добавить, что гуманитарные науки могут в двоякий способ функционировать в общественном сознании. Речь идет о своеобразной дихотомии гуманистики, которую можно бы изложить в словах: историзм и презентизм.

При всех этих оговорках автор решительно подчеркивает роль гуманитарных наук в формировании личностей в Народной Польше.

J. A. GIEROWSKI

El papel de las Humanidades en la formación de las actitudes sociales en la Polonia Popular

El desarrollo de las humanidades en la Polonia Popular se basa en algunos elementos que determinan su nivel y su participación en la labor de investigación. Los más importantes eran: el papel tradicional y el desarrollo anterior de estas ciencias en Polonia, la influencia del pensamiento y la metodología marxista, los contactos con los principales centros de humanidades de Europa y de América. Aunque cada uno de los tres factores mencionados se manifestara también en la tendencia de someter las corrientes restantes, a sus intereses se daba el caso de coinfluencia mutua de las tres como también la tendencia de unirse las corrientes formando así un total sintético. El alto nivel del que gozan algunas ramas de las humanidades polacas en la ciencia mundial era precisamente producto de esta situación. A esto se debía, en grado considerable, la posibilidad de influir las ciencias humanas en la formación de la actitudes sociales en la Polonia Popular.

?De qué valores y actitudes se trataba? Pues se relacionaban estas, ante todo, con los cambios de la forma y del carácter del estado. Manteniendo vivas las actitudes sociales que resaltaron fuertemente entre los polacos sobre todo en el periodo de la segunda guerra mundial, o sea el fuerte patriotismo y el sentimiento de responsabilidad ciudadana, había que crear sentimientos y actitudes nuevas, tales como por ejemplo hacer que una buena parte de la población se identifique con los terrenos recientemente poblados o, también, que la población polaca que habitaba desde años estas tierras se identificara con el resto del pueblo polaco, creándose asi una verdadera comunidad nacional. Este fue el punto de partida para la formación de la actitud abierta a las necesidades del país cambiado. Junto al cambio de la conciencia histórica y de la actitud ante el propio pasado, surgía la necesidad de obtener la aprobación social para el nuevo sistema politico-legislativo que determinaba la construcción del socialismo. Asi pues surgió el problema de relaciones entre las capas o clases sociales, ante su cambiante papel político y social, sobre todo siendo concedido el papel supremo a la clase obrera. Esto no fue fácil de realizar en una sociedad en la cual la clase obrera, al menos al principio, no era lo suficientemente numerosa, y despues, a causa de su gran aumento cuantitativo, no manifestaba uniformidad completa de actitudes. En esta sociedad el papel directivo lo desempeñaba tradicionalmente la inteligencia. Tropezaban con obstáculos los intentos de modificar la opinión general sobre el campesino, su trabajo, su posición en la sociedad, lo que se debía tanto al resentimiento siempre presente, como a la falta de una consecuente política agraria. Además, cada vez se trataba de un cambio doble: tanto de la creación en toda la sociedad de actitudes correspondientes a la posición y las posibilidades de una capa social determinada, como también hacer despertar en esta clase actitudes ciudadanas y sociales conformes al papel que ésta tendría que desempeñar en las nuevas condiciones. También era de esperar que al perder el estado polaco su carácter multinacional se debilitarían y desaparecerían actitudes antagónicas hacia varias nacionalidades que habitaban las tierras polacas. Sin embargo, resultó que la actitud de intolerancia era inesperadamente fuerte. Mientras que precisamente el problema de la tolerancia tanto en la esfera nacional como en la religiosa y cultural era y es de primordial importancia para la formación de las actitudes humanísticas en Polonia.

Otro problema lo constituían la influencia de modificaciones en cuanto a los fenómenos de carácter cultural y educativo, el acceso libre a la enseñanza conforme a los intereses y aptitudes, el acercamiento de los logros culturales a los cada vez más amplios grupos sociales. Se trataba aquí, ante todo entre las capas sociales que anteriormente tenían acceso limitado a la cultura, de inculcar actitudes abiertas, capacidad de percepción de los valores culturales y de la colaboración en su creación. Sería una exageración opinar que las humanidades, sin menospreciar su papel en el proceso de la educación, eran capaces de formar individualmente tales actitudes. Sin embargo pudieron contribuir a su surgimiento o concentrarse en torno a los problemas neutrales ante dichos cambios en la conciencia. Pour suerte no hubo tales dudas ni vacilaciones y, conforme la tradición, las humanidades polacas trataron de asegurarse un papel importante en el proceso de la adaptación de la conciencia nacional a los cambios que se iban efectuando, pese a la existencia de varios factores que obstaculizaban dicha actividad. Vale la pena subrayar aquí el papel de las ciencias históricas y también las ramas nuevas de la ciencia tales como la politología, sociología y psicología cuya influencia en la formación de las actitudes sociales aumentó, sobre todo, en las últimas décadas. Los humanistas en su mayoría son personas que viven profundamente los problemas de su época, son gente que tratan de ayudar a la sociedad a encontrar el camino apropiado en el laberinto de la vida contemporanea, tratan de educar e influir en la formación de una sociedad más consciente de sus tareas y objetivos, más digna de nuestras aspiraciones nacionales.

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University — Problems and Experiences

by

GRZEGORZ L. SEIDLER

1. Image and Value. At the time of great social tension and acute ideological conflicts, the teaching of values and the shaping of opinion and attitudes is particularly difficult. This holds true of the universities, which have been a venue where different standpoints clash. This is not to say, however, that the universities have always supported or been at the forefront of the most progressive trends. Academics do not have to have an adequate image of the world they live in or its proper assessment. They do not always have to correctly perceive contemporary events and develop methods of resolving them. Even if the image formed in their mind is adequate, it does not mean that they are willing to influence others.

Man thinks essentially in terms of images. An image once formed in his mind plays the role of a filter, through which particular pieces of information pass, thus becoming coloured or deformed. In the image of reality one has formed, apart from the element of space, time and relation (e.g. my image of London and Britain), there are also scales of values, which cause one to set information in order depending on whether it is profitable for one, his family, friends, enemies, compatriots etc. Those scales of values differ depending on who they refer to, e.g. what one considers profitable for himself, and may at the same time be considered unprofitable for one's friends or nation.

Likewise, information on political and social phenomena that reaches us assumes a definite colouring due to images that function in our mind (e.g. the image of academic youth). It is they rather than single pieces of information that determine our opinions, behaviour and the manner in which we act. If the information we receive is indifferent toward our image, it does not affect it to any significant degree. In case it is convergent with it, the image becomes fuller and assumes a more distinct shape. If the information does not coincide with our image, it triggers resistance on our part, which can have varying intensity, depending on such factors as the frequency of repeated information, the manner in which it is presented and argumented, the personality of the receiving subject and the objective situation in which the information is obtained.

This is not to say, however, that our images of the world and people are unchanging. Propaganda experts are well aware of the fact that consistently repeated information, the selection of arguments testifying to its correctness and references to authorities on the subject may considerably erode the receivers' image. They can alter it to a significant degree. However, it is also a familiar fact that information presented in a naively simplified manner may only prop up the existing image. The image may also be completely transformed when due to a deeply moving event, one completely changes his point of view and his outlook on the world. We can then speak of a person's "conversion" when one radically changes his views and life and suddenly undertakes activities that are totally alien to his former posture.

We shall leave aside sudden and spectacular changes in the way of thinking. The focus of the present study will be on systematic university education, whose aim is the formation of the students' definite mentality. We shall not only be concerned with the sum total of information offered to the students, but also with the development of certain modes of thinking. To describe the process of personality formation, the shaping of character or definite postures the Germans use the term Bildung.

All kinds of education, especially those that concern social phenomena, are permeated with the idea of valuation. Therefore, to those who in the name of objectivism favour the radical separation of fact from values, education is not a scientific process. According to them, science should exclusively deal with facts free from assessments. Thus, education, especially interest in politics and social affairs, is no less than propaganda practised under the guise of science. In their opinion, every science has its own specialized language, which differs from the colourful but imprecise colloquial tongue. It is thought that the more a field of science is developed, the more independent and accurate its language is, free of all the advantages and mistakes of colloquial speech. Education avails itself of the colloquial language, makes use of the figurative manner of expression and refers to emotions.

There is no doubt that the separation of facts from values during study positively affects its results. Likewise care for the precision of the language and the unambiguity of words has significantly enhanced the acceptance of the universal character of statements. It should be remembered, however, that the limitation of valuation in the process of the analysis of facts does not mean total elimination. Irrespective of intentions, unperceived or subconscious valuation is always there. Facts are not available to us in their obvious shape, as could superficially be thought. The fact is that we extricate them from a tangle of events and relations, later to arrange them in a definite order and include in a wider whole together with other facts we have examined.

I have already said that we think in terms of images and that our image of reality is made up of scales of values apart from the elements of space, time and relation. Thanks to them, information our mind registers is arranged in order and subjected to a process of selection. All this goes to show that in spite of a thinking man's assurances of his objectivism, he is actually unable to free himself from valuation.

What about the scientific language?

In sciences, the language of symbols, e.g. the language of algebra, is self-explanatory since a number of notions in those disciplines have no corresponding images, e.g. entropy. Besides, symbols are economical abbreviations of certain objects, relations or operations. In social sciences the dynamic search for sophisticated technology can easily lead to "language perversion". Those enthusiasts of the scientific language make virtue of obfuscation and describe clear and communicative manner of expression as a sin of popularization.

K. Popper says: "The method of constructing artificial languages makes it impossible to tackle the problems of the expansion of knowledge. It is far less suited to the purpose than the method of analysing natural languages for the simple reason that model languages are not as rich as natural ones. Due to their lack of sophistication, we obtain a model of the development of knowledge which is highly misleading and imprecise"[1]. André Maurois leaves no trace of doubt in his statement that modern thinkers have a magnificent mind while their common sense is very restricted. They do not think about the real matters of the world. They live above them among abstract words. If they accepted a rule that they will use only the simplest words and concrete expressions, most of their toughts would be impossible to express.

II. Two Traditions. From the historical perspective, one could detect with a dose of simplification two traditions that determined the different character of universities. One, inspired by Aristotle's thought, was eventually evident in the idea of the liberal university. The other, referring to the sophists, found justification in Francis Bacon's philosophy in the concept of a university oriented mainly toward practical purposes.

Aristotle differentiated three kinds of human activity. The first (poiezis) is a production of things, meaning all objects man needs to stay alive. The second kind of activity is praxis, which is expressed in the same activity, whose outcome is not objects, but acting itself, which is assessed as correct, fruitful, fine or in the opposite way. Thus, as an ethical or political creature, man finds sense not only in products but also in the perfection of acting, hence at every moment in his life he may be subjected to assessment. The third type of activity is theoria, or thinking, or rather theoretical reflection that may be practised both by the producer and activist. The fact is that the activity is always within the scope of his thoughts because its goal is not the making of objects or commendable way of acting but merely the acquisition of knowledge. In the last chapter of Nikomakheian Ethics we learn that ancient philosophy accorded the supreme value to intellectual reflection characterized by the selfless motive of cognition. It was thought the activity of the mind (nous) is man's most important property and that only in thinking can he prove his freedom.

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[1] K. R. Popper: *Logika odkrycia naukowego (The Logic of the Scientific Discovery)*. Warszawa 1977, p. 28.

Purely theoretical thinking devoid of productive activity, the search for the absolute truth accompanied by the simultaneous clattering of the grinder of Aristotle's logic, essentially accounted for the entire scope of activities of medieval universities. Masters and disciples made up the universitas professorum et scholarium, which was a separate corporation, whose members prayed, studied and dined together. A medieval university resembled a castle without windows, whose inhabitants lived a life of their own, deeply involved in theological disputes, oblivious of the outside world. Universities where empirical studies were conducted were somewhat exceptional. These included Oxford and Paris universities or Padova university in the 15th and 16th centuries.

It was not until the French Revolution that a major shake-up of university corporations occurred, notably due to Napoleon's decision to include them under state administration. Until then, universities had persistently opposed innovative ideas of the Renaissance, Reformation and the Age of Enlightenment.

A turning point for university structures was the establishment of Berlin University in 1809 by the then Prussian education minister Wilhelm v. Humboldt. The newly formed school was to a large extent dependent on the state. It not only increased the number of faculties beyond the traditional realm of theology, law and medicine, but thanks to the formation of science faculties significantly affected the future development of the German economy.

W. v. Humboldt combined the opening up of universities toward the needs of the nation with the idea of academic freedom. He guaranteed the university Lehrfreiheit and Lernfreiheit. The former (Lehrfreiheit) signified the freedom of teaching, which covered the professors, and enabled them to freely select the subject-matter of lectures, while the latter (Lernfreiheit) ensured the students full freedom of selecting lectures and classes. It was assumed that the main aim of the university was the search for the truth and that only professors who were free in their studies and teaching methods could develop the minds of the young.

The concept of Berlin University became a pattern for most European universities in the 19th century. Intellectual development and independent thinking of the students were the cornerstone of academic education, given that scientific research was part and parcel of the activities of academic staffs.

It was considered that in the system of education, primary school was supposed to give fragmentary knowledge, secondary school was meant to provide general knowledge whereas the task of the university was to introduce the young to independent and methodical thinking. Even if there were no doubts about the university education of the intellectual elite, the idea of the university's relation to concrete practical requirements provoked reservations. Cardinal Newman, the first chancellor of Dublin University, which was set up in 1852, resolutely rejected the idea of burdening the university with practical tasks. Acording to Newman, the goal of the university was to educate the intellectual elite, to raise the intellectual and cultural level of society, the shaping of its artistic tastes, the dissemination of rules that society could adopt for guidance, the deepening, but also toning down of current ideas, the facilitation, of the governing of the country and the improvement of human relations.

At the time when Newman thus outlined the role of the university, the industrial revolution was dramatically transforming production technology. It was a process that was accompanied by the change of traditional relations in society. Universities could not afford to remain indifferent to the ongoing process of economic transformations, all the more so because as of the second half of the 19th cenutry, news started arriving from North America on tangible results stemming from the connection of institutions of higher learning with the country's economy, notably with agriculture.

It could seem that the profound relation between American universities and practical ends marked the eclipse of the European idea of an independent and autonomous university. In fact, this was not the case. Of late, voices have been raised in the West forcibly calling for a return to the 19th century concept of the university. The idea is contained in a book *The Western University on Trial*, Berkely 1983, in which a dozen or so renowned European and American scientists level a scathing criticism at the present structure and level of teaching in western universities. A possible remedy, they claim, is a return to the idea of an autonomous and liberal university. The idea was most explicitly formulated by the co-author of the book Raymond Polin. In his opinion, the university is primarily the most appropriate place bringing together people who are strongly committed to the idea of free intellectual activity. The activity of the mind, Polin claims, is a source of all culture. It manifests itself as imagination, invention, creativity, analysis or syntheis. Therefore, Polin claims, it is imperative to eliminate all external pressure and limitations restricting free intellectual activity. The mind, armed with appropriate methods, is the sole instrument in search of the truth. University education should not only guide the intellectual development of the students, but it should also lead them from a state of intellectual adolescence to full maturity. The student should become a self-conscious person, a self-disciplined master of his own destiny, who realizes his goals within the confines of his own freedom, whose limits he sets at will. Therefore, Polin concludes, a full autonomy of universities significantly conditions their main aim of stimulating intellectual activity.

Alongside the autonomous-corporation tradition, there emerged another one, which connected the university with life. Under its influence, the university was open to social and economic needs and came to be known as the practice — oriented university. The roots of this tradition go back to the sophists. Despite Plato's unsympathetic attitude toward them, nothing can change the fact that their schools appreciated the role of practical skills, such as rhetorics, since they were more concerned about success in life than with searching for ideas or the truth. Pythagoreans did not neglect the practical role of knowledge either and so they practised astronomy. However, it was not these schools that defined the nature of ancient and medieval science. At the turn of the 16th century, Francis Bacon said that until his time, science had been fruitless and to make it fertile, it was necessary to apply entirely new methods in research. He thought that Greek philosophy after Socrates wasted too much time on theoretical considerations instead of focusing on real study. Thinking, Bacon claimed, can only be an auxiliary tool in the investigation of Nature and in no way can it take its place. The first aphorism of *Novum Organum*, which in a way is a challenge to medieval science says that man as a servant and interpreter of Nature can only perform and understand what the investigation of the order of Nature allows him to do. He is unable to learn or do more. Not surprisingly then, Bacon says, science has made such little progress since the time of Aristotle because it only used his methods and subordinated the philosophy of Nature entirely to logic, making its efforts fruitless. One should therefore transcend the confines of Aristotle's teachings and revive science. One should do away with and forget all former "learned disputes". A science that shuns life and adopts doubtful statements as its starting point without verifying them in reality is unable to enrich our knowledge. Bacon persistently emphasised that studies in themselves cannot be undertaken for their own sake. Neither are they a proof of wisdom, because knowledge which is not put to practical use is nothing more than academic vanity. Cunning people he says, despise academic studies. The naive admire them. Wise people know how to make use of them. Studies themselves do not teach one how to make use of them. How this should be done is science in itself, which is superior to studies and is gained through experience. This statement is a condemnation of overwise speculation divorced from life. It is also a call for a new concept of science and academic studies.

The new point of view took pains to win recognition in the academic world. Evidence of this is the fact that 250 years after the publication of Bacon's writings, the afore-mentioned Cardinal Newman focused on the criticism of

Bacon's philosophy calling for the practising of science that could bear practical fruit for man. The criticism was contained in his work on the goals of universities.

An important stage in the formation of the concept of a practice oriented university was the publication in 1862, on the initiative of Abraham Lincoln, of the Moril Act which allocated land and subsidies to new universities to stimulate their role in the development of agriculture. Lincoln's programme, known as the land grant movement, made American agriculture more dynamic. It also affected the structure of universities, which developed the teaching of science often at the expense of the humanities. Intensive funding made the universities dependent on state and federal administration, causing the limitation of academic autonomy. In this new situation, the universities were not so much interested in the education of the intellectual elite as in the training of well-prepared experts and the resolving of practical tasks.

Since the time of Lincoln, the United States' administration has consistently co-operated with the universities in the resolving important economic, political and social problems, but a systematic link between science and the state's activities had not been established until after World War II, on an unprecedented scale. Apart from normal budgets, as of the early sixties universities have been subsidised on a massive scale, chiefly to finance research connected with the arms industry and with the implementation of technology modernization programmes. The scope of funding is evident in the fact that as of the mid-seventies the number of research projects has doubled every ten years as have the human potential, equipment, libraries, facilities and spending on research. At the same time, the number of students and research workers has grown, which was accompanied by the development of existing and the establishment of new universities and research centres. The consistent policy of the intensive financing of science has made academic workers increasingly dependent on centres outside the universities. They have to reckon with their interests to a greater extent than with the matters of their own university and academic teaching. Clark Kerr, president of California University, one of America's greatest, writes that to a major degree universities have lost influence over decisions relating to their fate. The power of the chancellor and deans as well as of the senate and faculty councils has considerably been diminished. Research workers prefer to collaborate with their colleagues in Washington than take an active part in the life of the university. A marked shift has occured in the interests of foremost research workers from teaching to more lucrative scientific research, which has entailed the lowering of teaching standards and a situation in which teaching responsibilities are delegated to persons who are not sufficiently qualified. The higher one's academic degree, the more prestige he enjoys, the less he deals with the students and their education. Huge university campuses encompassing dozens of thousands of students and hundreds of research and teaching staff have become inflexible giants. Just like the dinosaurs, they have been finding it difficult to adapt to the surroundings and changing situations.

Despite its weaknesses, the practice — oriented university brought tangible profits, or at least it was accepted. American society cherished an illusion that universities were capable of resolving all economic and social problems. President Lyndon Johnson outlining the idea of the "great society" fervently assured that the answer to all the problems of the United States lay in a single word: education. In the mid-'seventies that illusion was shattered because a number of social problems inherent in the capitalist system could not be resolved without its fundamental transformation despite a great committment of the universities.

Ronald Reagan's deflationary policy has worsened the situation of universities, causing significant cuts and restrictions and even the closing of a number of research centres. Harmful results of state and federal administration's excessive interference in the life of universities have become increasingly evident. Controversies have been revived on the place and role of academic studies in society's life. One may observe a return to debates on the concepts of the university. There is mounting criticism of the falling standards of teaching. Particularly strong is opposition to the influence of centres outside universities on appointment to academic posts, often independent or even contrary to the stand of faculties. It is commonly thought that

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at the time of expansion of universities, too many insufficiently qualified persons were given full-time employment, which caused the bloating of academic staffs and reluctance to employ young, gifted scientists. The most explicit in his views is W. Chapman, the author of the already quoted book *The Western University on Trial*. In his opinion, the fundamental reason for the crisis of American universities is their dependence on political factors and lack of autonomy, which finds expression in the decisive influence of external factors on personnel policies, which do not always take account of scientific qualifications of candidates. More than eighty per cent of academic workers in the United States have tenures protecting them from dismissal until retirement age. Thus, the lack of autonomy coupled with permanent tenures caused the disappearance of the selection mechanism. The idea of periodic competitions culminating in employment contracts for no more than 5 to 10 years, even in the case of the most talented candidates, has been abandoned. Only the return to the idea of the competitions and contracts could lead to the proper selection of personnel, Chapman claims. It would remove the danger of teaching work getting into a rut and would open up real opportunities for young talented persons who should find employment in universities and who often not only work outside the academic field, but are actually out of work.

The critisism of the contemporary western universities is combined with a longing for a university that would bring together an independent intellectual elite. Calling for university work, R. Polin says, must solely depend on high intellectual qualifications. Our academic criteria must be severe. However, once a person has proved his worth, the rhythm of his research work and attainments should be respected and remain outside any form of control.

III. Our Problems. The rapid development of academic teaching in People's Poland has been accompanied by a lively discussion on the place and role of the university in this country's economic, political and cultural life. The problems of institutions of higher learning falling under various disciplines, to mention but pedagogy, sociology, history of culture and administrative law, have been the

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subject of serious scientific concern. Studies undertaken in this field have culminated in a number of publications which make up a no small specialist library.

Out of the vast number of issues relating to institutions of higher education in Poland, I shall focus on universities. More precisely, I shall mainly be concerned with the following questions: what concept Polish universities implement, what university education is all about and how it should be assessed.

Such an approach to the problem partially explains the opinion that university studies are more general and rather more theoretical than studies in other institutions of higher education that are oriented toward more practical subjects. There also exists a generally accepted view that an academic centre is incomplete without a university.

I am aware that my answers to the questions I posed will not be complete, because I do not feel competent enough to satisfactorily deal with them. I would rather like to present the formation of my image of the university. The more I got to know the institutions of higher learning, the more complex it became. Even those elements that were clear and unquestionable started losing their clarity.

When I became rector of the Maria Curie-Skłodowska University in 1959, Stefan Żółkiewski, the then higher education minister said, "The institution of higher learning in Poland may only be socialist. According to the letter of the law, it should actively participate in the construction and strengthening of socialism in People's Poland through all lines of its research, scientific and educational work"[1].

It would seem that a university established by a decree of the Polish Committee for National Liberation in the closing stages of World War II was best suited to become a fully socialist institution of higher learning. A slogan "Science at the service of the people" strengthened our conviction that sciences taught at the university should serve the socialist economy both in terms of personnel and the results of their findings. The humanities, in the broadest sense of the term, should strengthen the socialist system and perpetuate the existing social relations through their teaching and scientific activities.

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[1] „Życie Szkoły Wyższej" 1959, number 4, p. 15.

The expansion of the university compus started at that time provided an opportunity to formulate three principles, which in the present conditions were meant to enhance the implementation of the idea of a socialist university.

Firstly, an assumption was expressed that the university encompassed both "buildings and people". Therefore, the necessary development of its staff must be accompanied by concern for the maintenance of the university's material back-up facilities. In this particular case, of real significance was the construction of a modern university campus.

Secondly, through its scientific developments, the university should serve its region and collaborate with scientists elsewhere in Poland as well as keep abreast of developments in world science. This idea has been implemented by the university on a scale its resources allowed through the establishment of contacts between particular faculties and the developing plants on the right bank of the Vistula as well as through the participation of academic workers in the activities of national scientific societies and of the Polish Academy of Sciences. The latest developments in world science have been reported in a publication "Annales UMCS" which conducted the exchange of journals with more than one thousand research centres throughout the world.

Thirdly, it was decided that the aim of university education was the harmonious development of a student's personality. This idea, significantly influenced by classicism and the Polish Enlightenment was understood as an equal development of the university's students in the moral, social, intellectual and physical sense.

The latter principle concerning the need to develop students' personalities in a comprehensive manner, became the cornerstone of the concept of the academic campus, in which alongside teaching and research facilities, a major arts centre, known as "Chatka Żaka", was built and a dynamic sports centre was set up. However, the implementation of this principle in university education gave rise to reservations on my part. A conviction was widespread that moral and political education should mainly be

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restricted to the teaching of what was then known as ideological subjects. What it meant in practice was the restricting of the teaching of other disciplines to the presentation of strictly professional knowledge. After some time, it became apparent to me that such a state of affairs was undesirable.

I was once told about an ethics teacher who was accused of not practising what he preached in his own life. He was said to have replied casually that road-signs only showed the direction but did not move in this direction. This witticism questioned a stand I always advocated that the most effective method of education was the posture and behaviour of the lecturer himself, because students observe, criticise him and then often follow his example. All university workers affect the young through their daily behaviour as much as, or perhaps even more than, the teachers of ideological subjects. The point is not to disseminate numerous ideas with the sole purpose of enabling students to show off their knowledge. Apart from professional knowledge, they should develop a conviction that their knowledge is important from the social point of view, because as specialists, they must be aware that their moral imperative is to direct the social activity of people struggling for social justice. It is a fallacy to claim that university education can be narrowed down to strict professionalism.

The discovery of proper proportions between professional teaching and the formation of one's outlook in the form of moral and political education, is not the only problem that requires special attention. The university is an organism affected by external and internal relations. Their violation requires a constant restoration of balance as a necessary pre-condition for the normal functioning of the university. The relations are intertwined and form a whole. The violation of one of them may affect the entire organism of the university.

Relations between universities in the academic community is a typical example of external relations of universities. They can assume various forms, from outright hostility and attempts to cause problems to each other, through cool indifference and isolation to fruitful didactic and scientific collaboration. The ambitions of universities often hinder or even paralyse co-operation, sometimes causing irreparable harm, for instance when research centres encompassing several universities, concentrating research potentials and resources, are closed. Usually, the relation is described as the degree of the integration of the academic community.

Another external relation is one existing between the university and the local community, which mainly finds expression in the co-operation of the university with political, administrative, economic and cultural organizations of the region. The point is not so much to develop a mode of existence, but to create a climate conducive to the proper perception of the university's role in a community, the acceptance of its goals and prestige. Although the relations are usually positive and mutually beneficial, this particular area may also witness disturbances. Pressure may for instance be exerted on the university to open new consultative points for extramural students without proper considerations of the recruitment base or the university's personnel capabilities. Of particular significance is also the relation of the university to the ministry of higher education, whose decisions, justified from the national point of view, may disregard the specific characteristics of a university e.g. through inadequate funding.

External relations significantly influence the activities of a university. However, equally, or even more important is the significance of harmonious internal relations. A harmful infringement upon internal proportions is the attachment of too great importance to all kinds of research work irrespective of its results and insufficient appreciation of teaching activities. Although ostensibly both teaching and research are given equal prominence, only the latter is taken into account in the assessment of university workers. Only printed scientific publications matter. Usually even works of dubious cognitive and theoretical value take precedence over excellent teaching, which is rarely noticed and appreciated. The description "working for one's degree" meaning the effort one has to make to climb one step higher in the academic ladder is a good reflection of research workers' attitude to teaching and present authorities in their field. I do not postulate that research and teaching should be treated on an equal footing, but to treat the problem in terms of the virtuoso and composer could offset the discrimination against teachers.

Closely connected with didactics is a relation between quantity and quality. The justifiable conviction that higher education opens up opportunities of a better life does nothing to decrease the number of candidates, all the more so that the state offers comfortable living conditions to those who pursue normal and extramural studies. The growing number of first year students at a time when the effectiveness of university education is measured in terms of the number of graduates, makes it increasingly difficult to maintain teaching standards. Failing marks are rare or non-existent, not because of a breakthrough in teaching methods, but due to the blunting of the mechanisms of selection. No school, let alone a university, can function without selection since its aim is to stimulate the capabilities of students in the process of intellectual rivalry. Equal opportunities must under no circumstances lead to the mechanical equality of results.

The harmful influence of the number of students on quality is also evident in the work of the academic personnel when extramural studies are disproportionately expanded in comparison with intramural studies. The fact that academic teachers are assigned large numbers of additional classes, have to commute to consultation points, discuss with students and correct their works, is bound to lead to getting into a rut and to passivity in the field of research if the additional responsibilities are carried out in earnest. The proper relation between extra- and intramural studies affects not only the quality of studies, but also research activities of university workers.

The need to balance various improper relations arises time and again. This is most often manifest in the form of more or less sharp contradictions or even conflicts when the subjective point of view of a research worker is at variance with the interests of the university, when collective bodies hamper the implementation of decisions of university authorities in the name of ill-conceived autonomy, when the administration undertakes initiatives that are convergent with the letter of the law, but which are viewed by research workers as excessive bureaucracy. A number of such tensions characterizes the daily life of the university. Their variability in the hierarchy of university problems and their various intensity leads me to describe the re-introduction of harmony between violated relations as "the restoration of dynamic balance". Similar tensions occur in other institutions of higher learning as well, but as a point of reference for the entire academic community, the university manifests them to a greater extent and it affects the community to a greater degree.

My remarks on the set of relations have not made the image of the university any clearer. In fact, they overshadowed the main subject. At any rate, if we rejected the idea that the university is only a place of the search for the truth in itself, we must agree that the search for the truth that enriches practice may only be conducted through unbridled and bold advancing of hypotheses and their equally bold, unrestrained rejection.

If we reject the idea of reducing university education to professional training, it should be accepted that every research worker brings up students even by means of his „objectivism".

We now return to the question what criterion should be used in the assessment of the university. The answer will depend on how we view the university. There are two possibilities: either we treat the university as an institution that primarily deals with scientific research, where young people are also educated, or as an institution whose primary goal is the education of students, where scientific research is conducted as well. The difference of approach consists in the emphasis on either of the two functions of the institution of higher learning. In the former case, the prestige of the university depends on its research potential, while in the latter on the quality of graduates.

The priority of scientific research in the activities of the university is essentially generally accepted. Jan Szczepański says, "There is no doubt that the rank and importance of a university depends on the number of prominent scientists who are generally recognized due to their scientific attainments who are able to establish "schools of scientific thought", publish journals and scientific studies"[8].

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[8] J. Szczepański: *Socjologiczne zagadnienia wyższego wykształcenia (The Sociological Aspects of Higher Education)*. Warszawa 1963, p. 246.

The second standpoint, emphasizing the superiority of education in the work of the university is less frequently accepted and justified. While due prominence is given to the role of scientific research, education is given priority and is treated as the main criterion used in the assessment of the university.

Speaking about broadly conceived university education, I deem it necessary to recall the role of German universities during the inter-war period. At that time, they enjoyed worldwide reputation as leading scientific centres that trained competent experts. It appeared, however, that those who considered themselves to be, and were viewed by others as excellently educated specialists, found it surprisingly easy to become subordinated to the magic fanaticism of Hitler. Those highly qualified specialists, the intellectual elite which was overwhelmingly indifferent to matters outside their professional field, failed to develop their own point of view and became passive instruments of evil, thus testifying to the strictly professional education of German universities.

Professional knowledge alone is not enough for contemporary man to develop a round personality. The world we live in requires broader horizons and lively interest of people with university degrees. The rapid development of science, the speed of information flow and modern communication means have caused the shrinking of the world. Local matters have become connected with those of the state. The interests of a state have become related to global ones. Even a local activist or a specialist in a narrow field may manifest surprisingly short-sighted and naive judgments even if his intentions are good, unless he views issues from a broader perspective.

Man's intellectual life may not be restricted to practical knowledge, which enables him to implement conscious goals. There exists a no less important sphere of man's culture encompassing his selfless aspirations to gain knowledge as a goal in itself, his search and longing for beauty for its own sake, his acceptance of moral principles that determine behaviour, whose observance is a virtue and reward in itself, the way the stoics put it praemium virtutis ipsa virtus. Apart from the two spheres we mentioned, there exists a third one. This is a sphere of our beliefs, ideals, hopes, aspirations and expectations. We may rationalize it to a significant degree, but we are unable to eliminate it, because without it our life would be lacking its moments or perhaps would be senseless. When Dante and Virgil step beyond the threshold of afterlife, on a gate leading to Hell they see an inscription calling on those who enter to give up hope (*lasciate ogni speranza*), because it is a place for souls despised both by God and Satan. Dante says that the souls lived knowing no disgrace or honour, selfish, neither faithful to God nor infidel. They do not deserve attention, so you should take a look and pass (guarda e passa). Everything that is alive which we undertake in our lives is interesting only because we wait for something. We cannot expect anything of death. Expectation and hope are a vital element of life.

Three spheres, of practical knowledge, culture and beliefs and ideals form man's personality, which is the constant process of becoming. The relation of these three spheres constantly changes which makes them influence one another with varying strength. Their subject-matter and intensity of affecting an individual's personality expands or narrows. Changes in the nature and configuration of the three spheres stem from personal experiences, knowledge gained by an individual, his age, to mention but some subjective circumstances. The configuration of the three spheres and their role is also influenced by the objective situation Man lives in, e.g. the political and economic system, the professional group or well thought-over education.

It is beyond doubt that practical knowledge conditions progress, guarantees the material conditions of existence and ensures a proper living standard. It would be a harmful mistake, however, to reduce all university education to the sphere of practical knowledge, because the spheres of culture, beliefs and ideals are indispensable to ensure the cohesion, durability and strength of society. This is how I preceive university education.

The stimulation of broad interests accompanied by professional teaching is the first responsibility of academic education. In my understanding, the university is the most appropriate place to enhance genuine and multi-sided curiosity in the minds of the students. Above all, to make them keenly interested in contemporary realities. Chesterton spoke of the significant difference between a man burning with impatience who wishes to read a book and a tired man who asks for a book to read. A student who is indifferent to the problems of the contemporary world not only fails to understand them, but at the same time he may easily view the matters of his own country in a crooked mirror. He is out of touch with reality.

The stimulation of students' broad interests, the influencing of their curiosity are not the sole purposes of academic education. Another, equally or perhaps more important purpose is to help them develop the ability to properly assess current developments.

What do I mean by "proper assessment"?

The phrase contains two assumptions: the ability to view phenomena in the light of their consequences and the correct criterion of their evaluation.

The former assumption boils down to the ability or skill of seeing things in their proper perspective. Reflective thought should take precedence over impulsive reaction. This point of view is characterized by the ability to grasp the consequences of events that are now taking place and of decisions. This is how a careful person behaves adjusting plans not only to realistic capabilities, but also to foreseen situations. Looking ahead in a game of chess means the anticipation of partner's possible moves. In political philosophy, this means the perception of social consequences of views one presents. In political economy, this means the anticipation of economic moves. The most evident, however, is the role of anticipation in military strategy and tactics, where it is tested through the tragedy of failure or the success of victory.

I once saw in Oxford a list of the world's most prominent commanders who according to the author of the list based their decisions on the broadest range of military, personal, political and other factors to properly foresee the consequences of their moves. To my astonishment, Napoleon, the triumphant God of war, was ranked sixth. The list was topped by the duke of Marlborough, the victorious commander of British and allied armies in the war against Louis XIV. He was followed by the Byzantine commander Belizarius, duke Wellington, Frederic the Great and general Lee, who carefully calculated even the consequences of defeat. I am not sure whether the list has any cognitive value. My sole intention was to point to the significance of anticipation in martial arts.

Undoubtedly some minds are gifted in terms of reflective thinking. They almost effortlessly resolve complex equations of life and find it easy to emerge victorious from difficult and entangled situations. However, normally the ability to anticipate things must be acquired. It is a fruit of efforts both on the part of those who teach and learn. The precise observation of phenomena, the tracing in mind of their development, the advancing of hypotheses on possible consequences and their verification with facts is nothing else but methodical thinking, which a student should learn during his university studies. However, a disciplined way of thinking must be connected with the ability to form proper judgments. This is the second assumption of scientific thinking.

To fill students' minds with information alone may prove to be a futile task. In my opinion, knowledge one gains bears fruit only when one is able to anticipate possible social consequences. A correct judgment, which I also describe as "proper" requires one not only to view events in terms of consequences, but also to evaluate them. Anticipated consequences should thus be considered in the social context, which reveals their genetic and functional aspect. Being aware of social circumstances by no means signifies the neglecting of the vast attainments of theoretical and experimental knowledge obtained as if independently of the understanding of their social aspects. The lasting body of scientific knowledge, which is a measure of how close human thinking approaches the objective truth, is used not only by one social formation or class, but by entire nations and making at large. On the contrary, the direction of scientific research and its organization is politically conditioned to the extent that it is subservient to the base of a given political system. In this field, science is linked with the superstructure, the ruling class and its interests. I think that university education must not disregard the socio-political nature of knowledge, especially its practical significance, because only then does it teach scientific thinking. Failing to perceive the social function of one's profession, one's ability to anticipate events is not fully scientific thinking. The world cannot be corrected by reflective thinking alone. This can be achieved solely by social practice that shapes it.

University education must not consist in the reciting of formulae one has learned by heart. Its result should be a mentality trained in Marxist philosophy, capable of making an intellectual effort of correctly anticipating and evaluating events that are taking place. It is easy to transform the Marxist way of thinking into its own caricature and to replace the richness of life, movement and mutual reaction with stereotyped concepts. Scientific thinking, which university education should promote, does not mean the search of easy solutions. It is an arduous intellectual climb up steep passages to the peak of science. When one finds himself on the top, one is able to perceive events in the perspective of their consequences, to properly evaluate them to be able to act wisely and sensibly.

Is not then the touchstone of the university its graduate whom no-one could describe in the following way: *Il pense comme un homme, il sent comme une femme, il agit comme un enfant*?

Т. ЗАЙДЛЕР

Об университете

Передача ценностей во время сильного общественного напряжения относится к особенно трудным задачам. Это касается главным образом университетов, которые как в прошлом, так и в настоящее время являются ареной столкновений и борьбы разных оценок и суждений.

Человек мыслит, в основном, образами. Раз уже сложившийся образ исполняет роль фильтра, который деформирует отдельные информации. Это заметно в университетском образовании, когда дело касается выработки у студентов определенного способа мышления, а не только передачи знаний.

Однако универтитеское образование не исчерпывает всех задач. Смотря с исторической перспективы, мы можем, с некоторым упрощением, увидеть две традиции, которые предрешили различия среди университетов. Вдохновленная Аристателя мыслью, первая традиция признает высочайшую ценность теоретической рефлексии. Эта традиция, в конечном итоге, проявилась в либерально-автономической идее университета. Вторая, тяготеющая к софистам, нашла в философии Франца Бэкона оправдание для концепции университета, ориентируемого, главным образом, на практические потребности. Переломным моментом для первой концепции было создание в 1809 году Вильгельмом фон Гумбольдтом Берлинского Университета. В то время считалось, что главная цель университета состоит в поисках правды и что только независимые в своих исследованиях и преподавании профессора могут развивать умственные способности молодёжи. Основы концепции Берлинского Университета стали образцом для университетов Европы нового времени.

Наряду с либерально-автономической традицией появилась другая — связывающая университет с практической жизнью. Важным этапом для этой концепции было введение в 1862 году, благодаря А. Линкольну, закона, который пришел с помощью новосозданным университетам, предоставляя им территории и субсидии, чтобы их деятельность ускоряла хозяйственное развитие США. Насколько связь американских университетов с политикой вызывает возражения, т.к. ведет к опасному ограничиванию их самостоятельности, настолько университеты Западной Европы подвергаются критике, направленной на их структуру и программы, которые не отвечают потребностям быстро изменяющейся жизни.

По этой причине, дискуссии о месте и роли университетского обучения в современном обществе продолжают быть актуальными. На их основе был издан в 1983 году обстоятельный труд под названием „The Western University on trial" (Berkley), в котором многие выдающиеся учёные подвергли критическому анализу современную структуру и уровень обучения университетов Западной Европы.

Las universidades

En el perido de fuertes tensiones sociales, la tarea de propagar ciertas ideas resulta sumamente difícil. Esto se refiere ante todo a las universidades, que fueron tanto en el pasado como en la actualidad, el lugar de enfrentamiento de varias opiniones y juicios.

Se podría decir que, en general, el hombre piensa a través de imágenes. Una vez formada en la conciencia, la imagen desempeña el papel de filtro que deforma las informaciones independientes. Tal situación tiene lugar en la enseñanza universitaria cuando se trata de inculcar en el estudiante cierta manera de pensar y no solamente enseñarle ciertas ideas.

Sin embargo la enseñanza superior no agota todas las posibilidades ni tareas por realizar. Desde el punto de vista de la perspectiva histórica, podemos, simplificándolo un poco, percibir dos tradiciones que decidieron sobre la diferencia de las universidades. La primera, inspirada por el pensamiento de Aristóteles, concede el valor primordial y supremo a la reflexión teórica. Dicha tradición se concretizó definitivamente en la idea de la universidad liberal autónoma. La segunda, concerniente a las ideas de los sofistas, presente en la filosofía de Francisco Bacon, justifica el concepto de la universidad orientada ante todo hacia las necesidades prácticas. En lo que se refiere a la primera, el momento crucial fue, en 1809, la fundación por Guillermo von Humboldt de la Universidad de Berlín. Entoces fue expresada la idea de que el objetivo principal de la universidas es buscar la verdad, y tan sólo los profesores plenamente libres, no limitados en sus investigaciones y enseñanzas, pueden desarrollar las mentes de los jóvenes. El concepto de la Universidad de Berlín se ha vuelto el modelo de universidades de la Europa contemporánea.

Aparte de la tradición liberal — autónoma, se esboza otra que unía la universidad con la vida práctica. Una etapa muy importante para la propagación de dicho modelo fue la promulgación, por Abraham Lincoln, del decreto-ley

(1862). Lincoln ayudaba a las universidades recientemente creadas, concediéndoles terrenos y subvencinándolas, para que la actividad de éstas promoviera el desarrollo enconómico de los Estados. Aunque por un lado la relación de las universidades americanas con la vida del estado cause objeciones, puesto que conlleva a la peligrosa limitación de su autonomía, por el otro, las universidades de Europa Occidental son criticadas por el hecho de que sus programas y su estructura no responden a las necesidades que les presenta la cambiable vida diaria. De allí que sean muy actuales las discusiones sobre el lugar y el papel que desempeñan los estudios universitarios en la sociedad contemporánea, cuya confirmación es la obra "The Western University on Trial", publicada en Berkely en 1983, en la cual varios científicos famosos sometieron a un profundo análisis crítico la presente estructura y el nivel de la enseñanza en las universidades occidentales.

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Selection of the Content of Higher Education and Outline of the Criteria Governing the Choice

by

CZESŁAW KUPISIEWICZ

The Third Congress of Polish Science was held in Warsaw between the 5th and 7th of March 1986. Among the many problems the participants looked into, special attention was given to higher education. Pointed out too was, inter alia, the need for treating higher education as an integral part of the system of national education. It was also underscored that it was legitimate to expand on an unprecedented scale, the accessibility to higher education. Emphasis was placed on the necessity to establish proper correlations between the operation of variety of institutions of higher education with the current and prospective demand for skilled personnel in national culture and economy. Last but not least, the need was stressed for improving methods and up-dating the subject matter of academic education, the problem which will be dealt with in the present essay, special emphasis being placed on the selection of the content of education.

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The years after the Second World War have seen important quantitative and qualitative transformations in Polish higher education.

The quantitative transformations consisted in the positive changes in institutions of higher education from institutions destined for the privileged (the situation typical of Poland between the First and Second World Wars when the number of students totalled some 80 thousand, that is sixfold less than now, the present day size of the entire population being equal to that from before 1939) into institutions open to all. Moreover, there has been an increase in the numbers of female students and full-time personnel as well as those attending variety of post-graduate studies, including mainly courses for candidates for a doctor's degree.

The principal effect of the qualitative transformations that took place in Poland's higher education in the years 1945-1980 was the changed character of research work. Besides inquiries run by individual researchers, team studies were becoming more and more frequent. Monodisciplinary pursuits were complemented by interdisciplinary projects, and the traditional scope of objectives higher education had been expected to deal with defined as "production and transmission of knowledge" was in many institutions extended by the aspect of "utilization of knowledge".

These transformations (being both a consequence and one of the causes of the scientific and technological revolution, the post-war years have seen in Poland) seem to exert a substantial impact upon the content of education, and consequently also the criteria and specific conceptions related to the choice of the content of higher education.

The criteria for the choice of the content of education. These stem from the targets set before higher education, which in turn appear to be resultant of social and economic determinants existing in a society, as well as of its characteristic level of scientific, technological and cultural advance, its national tradition, attitude to the progressive heritage of mankind etc. This explains why medieval higher education was confronted with different challenges than higher education of early capitalist era or the present-day university. Besides, objectives pursued simultaneously by higher education in societies belonging to opposing socio-

-economic systems may show substantial differences, one example of which are the respective socialist and capitalist countries' indices concerning enrolment of candidates from labourer and peasant families.

The diversity of tasks set before higher education in particular historical periods and different socio-economic systems has in most cases been accompanied by diversity of the criteria governing the selection of the content of education intended to fulfill the tasks. This was the case in the 18th century when Jean Jacques Rousseau's ideas gave rise to the controversy of whether education should serve to create a full human being or a proper citizen. Likewise, in the 19th century the dilemma, "education for an individual or for his society" stirred the minds. Among the present-day alternatives belonging to this same category of problems: "to have versus to be"; the choice between anticipatory and discovery-oriented attitudes to learning; education for the needs of the future or of here and now.

Some of the above mentioned pairs of options no longer represent proper criteria for selection of the content of education, while others are still worth looking into.

To educate a human being or a citizen? When Rousseau proposed the alternative, it was undisputably and universally legitimate, for it was obvious that feudal society could hardly provide means to bridge the gap between "good human nature" and unjust socio-economic arrangements corrupting the nature. Today the alternative does not hold true of many countries, which provide their inhabitants with permanently improved conditions enhancing or even accelerating all-round development of children, youth and adults. Thus the Rousseau antinomy proves invalid in those countries, since the connotations of the concepts involved need not necessarily preclude each other. Actually they may even overlap. Consequently also the criterion of the selection of the content of education derived from the antinomy becomes irrelevant.

The alternative under discussion has sometimes been worded in a way that sounds more familiar to the modern man: "general or specialized education?". The underlying idea was that the two types of education serve to achieve different aims: the development of a human being (general education), and training an employee (specialized education). Besides, not infrequent have been the opinions that the distinction in question is legitimized by the fact that the rapid progress and especially automatization of production make man a sui generis fixture to a machine. The experiences of many work establishments indicate that this need not be true. While, teaching and educational pursuits of many secondary schools and institutions of higher learning demonstrate that placing general education and vocational training in opposition is groundless. For in reality general education always represents a foundation on which vocational (specialistic) training is built. Besides, both concepts have gained new meanings recently. On the one hand general education has been complemented by the so-called polytechnic elements, while on the other hand there have begun to emerge the trend of "humanizing work" and its effects in the realm of choosing the content of vocational education in technological universities. In such circumstances it is no accident that more and more frequent are becoming educational programmes in which a wide range of general-theory disciplines (having the character of broad foundations) is combined with specialized studies. This is compatible with the contemporary evolutionary trends of production processes characterized by substantial occupational mobility, and consequently as far as employees' situation is concerned, the existence of the requirement and ability of speedy and also effective adjustment to the altering work conditions, and even acquiring new vocational skills.

The needs of the society versus the needs of an individual. Domination of social needs over educational needs of an individual was at the beginning of the present century the motto of the so-called pedagogical sociologism. The policy was countered by proponents of other pedagogical trends, who reffering to inter alia naturalistic ideas, insisted that teaching and education should be based on the principle of priority of educational needs of an individual over the needs of the society. There is no logical basis for existence of this controversy in the countries that have managed to eliminate the fundamental contradiction between educational needs of the society and those of an individual by providing children with conditions encouraging all-round, development. Consequently useless have become the criteria for the selection of the content of education. Besides, compatibility of the educational needs of the society and those of an individual does not preclude the usefulness or even the necessity of individualizing the content of education in accordance with the interests and aptitudes of individual students.

To have versus to be. This alternative unlike those discussed above emerged a relatively short time ago, as an offshoot of development of modern civilization, high living standards, growing supply and demand for variety of consumer goods as well as the spread of attitudes and aspirations relying on possession as the alleged measure of individual's worth and resourcefulness. The determination to collect the largest possible amount of goods of all kinds accompanied in most cases by wastefulness and abandonment of truly human values: to be, to be someone, to be for somebody and something worthy, has led to the emergence of the so-called consumption-oriented life style, which has been cultivated in many capitalist countries. The trend was criticized among others by Erich Fromm. It can also be observed in Poland. A programme of the struggle for the new standard of life has been worked out to fight the trend. Its motto: "learning for the sake of being" implies that the programme is intended to create individuals who apart from the possession of knowledge, can and most of all want to use it as well as all the skills involved for the pursuit of the noble goals of their own and the civic ones. This is conducive to the development of one's own personality and helps to promote social advancement, or, to put it differently, sets rational limits between the realms of "to have" and "to be". The alternative of "to have or to be" viewed in terms of pedagogical analyses may be useful both as a criterion of choosing the content of education and as a guideline for teaching and educative pursuits in schools of different types, including the academic level. However, the "to be" half of the alternative, meaning sensibility to noble goals and values never precludes the realm of "to have" even if the former proves to exert a stronger impact on one's attitude than the latter. In such circumstances "having" performs the role of a vital (though insufficient) precondition of "being" just like general education is a precondition of vocational training, and development of an individual is a prerequisite of social advancement. Thereby, a rationally formed realm of "being" represents a dialectical determinant of the content and scope of the implications of "having" for a given individual.

Education for the needs of present moment versus education for the needs of the future. This alternative emerged dramatically when it was realized that in this age of rapid evolution in science, technology, social relations and culture, school for the first time ever must prepare people for life, it neither knows nor can foresee, which prompted educators to start devising new curricula and organizational measures intended to prepare students for coping with new and difficult situations that necessitate enterprise and resourcefulness, as possession of the skill of collecting, storing and selecting information, and also decision-making based on sound premises, all of which could be summed up as a capacity to adjust to the new living conditions and to altering them in accordance with one's needs. These objectives can no longer be accomplished by relying on the encyclopaedic model of education, or a reproductive methodological model, or finally the insufficiently flexible type of organization of education of children, youth and adults along with the hitherto existing model of higher education. These must be replaced by new curricula, methodology and management so as to pave the way for the establishment of a new approach to education and academic schooling based on comprehensive, global, dialectical treatment of these problems departing from the hitherto prevailing model which lacked internal cohesion and frequently showed incompatibity of the content of education and its methodology and organization, or was characterized by the absence of connections between learning and teaching, theory and practical experience, acquisition of knowledge in the young age and continuing education, learning at school and learning from other sources of experience. In the prospective model priority would be given to teaching unaided acquisition of knowledge and skills, as well as to developing in pupils and students the habit of improving their qualifications and modernizing their knowledge. Consequently the skills of anticipatory reasoning and the seeking of options might also be taught as well as the abilities of working in a team and optimum employment of the previously acquired knowledge. The implementation of these plans could lead to the re-interpretation of the alternative under discussion as, which seems to be more appropriate, "education for the future through competent utilization of the past achievements of man in different walks of his creative activity". Apparently, this verified version of the alternative in question might become a useful device for selecting the content of education.

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The other alternatives also need similar re-interpretations so as to help to select the content of university education, since the simple antonimies they carry make them false, or inadequate. For is it not inadequate to place in opposition (in definite circumstances) the concepts of education of man and education of a citizen. Can, by any means gratification of an individual's educational needs not be reconciled with educational needs of his society? And finally can we not say that education for the future should have the experience amassed by the previous generations as its foundation? The demonstration of the inadequacy of the simple placing of the two halves of the problem in thus worded opposition prompts us to conclude that they could be, through and interpretation, combined into coherent, dialectical entities, which in turn might serve as guidelines for selecting the content of education or to put it differently, general criteria governing the process.

Thus such rational criteria should be sought not so much among isolated slogans juxtaposed by way of opposition, but rather among the wide range of diverse factors affecting living conditions and all-round development of present-day man, i.e. his intellectual, socio-moral and volitional development comprising the categories of "knowing that", "knowing how", "knowing why", and also "being able to" and "wishing".

Ч. КУПИСЕВИЧ

Подбор содержания обучения в высшем образовании — очерк критериев

Критерии подбора содержания обучения являются производными по отношению к целям поставленным перед высшим образованием. Эти цели, в свою очередь, представляют собой равнодействующую силу господствующих в данном обществе общественно-экономических отношений, характерного для него уровня науки, техники и культуры, традиции своего народа, отношения к прогрессивному наследию человечества и.т.д. Поэтому одни цели ставились перед высшим образованием в средневековье, другие в период раннего капитализма, отличные цели ставятся перед ним в настоящее время. Кроме того, даже в одной и той же исторической эпохе, но в обществах с разными общественно-экономическими отношениями, цели осуществляемые высшим образованием могут, в значительной степени отличаться друг от друга. Их разнородности сопутствует обычно разнородность критериев подбора содержания обучения, при помощи которых можно эти цели осуществлять. Так было в восемнадцатом веке, когда возникал вопрос о том, должно ли служить обучение развитию человека или гражданина; так было в девятнадцатом веке, когда раздумывали о критерии — „обучать для индивидуальной личности или для общества"; в настоящее время мы тоже стоим перед альтернативой: „иметь или быть", „обучать для сегодняшнего дня или будущего" и.т.п. Одни альтернативы потеряли уже свою актуальность, зато другие попрежнему содержат правильные и надлежащие критерии подбора содержания обучения.

В заключении автор статьи утверждает, что надо искать рациональные критерии подбора содержания обучения не столько в отдельных, причем понятых альтернативно лозунгах, сколько скорее в широком кругу разного рода факторов, определяющих условия жизни, а также всестороннее развитие современного человека.

C. Kupisiewicz

Selección de materias a enseñar en las escuelas superiores — esbozo de criterios

Los criterios de selección de materias se relacionan y dependen de los objetivos de la enseñanza superior, que a su vez son el reflejo de relaciones socio-económicas propias para una sociedad determinanda con su característico nivel de ciencia, técnica y cultura, sus tradiciones nacionales, su actitud hacia el patrimonio progresista de la humanidad. De allí que fueron muy distintas las tareas de la enseñanza en la Edad Media, en la época del capitalismo incipiente o hoy día. Además, hasta en la misma época histórica, pero en sociedades de distinto modelo socio-económico, los objetivos realizados por la enseñanza pueden variar considerablemente. Dicha variedad de objetivos va generalmente acompañada de una gran variedad de criterios de selección de las materias a enseñar criterios que contribuirán a la realización de los objetivos en cuestión. Así fue en el siglo XVIII cuando se planteaba la pregunta si la enseñanza debía servir al desarrollo del hombre o del ciudadano; lo miso ocurrió en el siglo XIX cuando se discutía el criterio de "educar para la entidad o para la sociedad"; el mismo problema surge hoy día cuando se nos presenta la alternativa de "tener o existir", "educar para el presente o para el futuro", etc. Algunas de estas alternativas ya se han desactualizado, sin embargo otras siguen siendo consideradas criterios apropiados de selección de materias a enseñar.

En conclusión, los criterios racionales de selección de las materias a enseñar deben ser determinados no por lemas singulares comprendidos alternativamente sino más bien por una amplia variedad de factores que definen las condiciones de vida y el desarrollo completo del hombre contemporaneo.

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Życie Szkoły Wyższej 1986

The University Teacher — Professional Ethos and Educational Model

by

JAN LEGOWICZ

An American educator P. Drucker maintains that the contemporary school "is going through a crisis not only because it has started to work worse", but because "it has been doing a terribly bad job all the time". Maybe it was a "bad job" if we judge it by present-day criteria, however, one should not forget that a school is also a product of its times, that it works and performs the tasks imposed by these times. Hence the question arises whether the school of yesterday and the day before yesterday would meet the present-day requirements which herald, in a different way, the new human future and whether the answer is to be found in the dialectics of the historical and social development of man, his unceasing wrestling with himself, his advancing negation of the selected seeds of knowledge, skills, existence and activity to affirm from this aftercrop the new knowledge, though not final, or the skills, though not fossiled, or the existence fixed once for all and the activity adjusted to a standard. In this perspective, efforts to transform education in the socialist societies take on specific significance.

Nevertheless, the transformations cannot be accomplished only and exclusively through otherwise indispensable legal and organizational reforms, labor regulations or solely through technical equipment since they will always be only means to an end. And what is important here is just the goal of education, in this case, through institutions of higher learning — the goal of man formed by society, which, since his appearance in the world or perhaps even before that, has been shaping his individuality, his personality, adding a human and socialist meaning to his existence. It has wanted to see him as its partner in sharing the rhythm of life, its development and progress in the contemporaneity and the foreseeable future. To reach this goal, institutions of higher learning need reforming, but it cannot be accomplished only through the otherwise motivated with best intentions legal and administrative amendments, imposed from outside, to the institutional structure of the higher education system. The weight and scope of socialist responsibility for the education of man, who is to achieve human self-realization through, for and in the socialist society requires primarily a pedagogical, didactic and educational transformation of the very higher education worker. That is why the reform cannot boil down to the concoction of panacean recipes for the ever-growing clerical management and atomization of institutions of higher learning into more and more separate and bureaucratically more and more self-contained units or production--efficiency oriented and mainly economically accountable teams euphemistically called research teams. The reform should provide institutions of higher learning with causative conditions and even force them to become what the socialist reality in perspective demands from them through their efficiency. These demands, however, cannot remain in the sphere of Platonic models developed in ministerial designing offices, but, first of all, have to embrace what makes institutions of higher learning "in general" specific "man--producing" establishments, where individualistically, professionally, morally and culturally "programmed" socialist man is created, taught and educated. To reach this goal, the reform would have to become a dialectic formation and conscientiously adequate placement of the university teacher as the main advocate and performer of socialist university tasks.

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While bringing to the fore the importance of the university teacher in the educational production by the institution of higher learning, one should not be carried away by the claims that a young man is educated and taught not only by the university teacher, but also by his environment, family, various kinds of concomitant factors, the whole society. All this is true and should not be overlooked, but it does not betoken the goals, tasks and educational effectiveness of institutions of higher learning as an institutional team employing professionally, socially and ideologically definite people, whose specialty and vocation is to teach and educate and hand over to society not "anyone" with higher education "in general", but thoroughly professionally and individualistically trained people whom institutions of higher learning are obliged to train by their statutes and social demand due to their legally approved structure. And institutions of higher learning are not accountable for it only as a "registered" firm. The personal responsibility rests with their management, with the university teacher with his scientific and educational background, his individually and socially moral attitude, his culture, his professional ethos. He is also responsible for all that creatively or restrainingly accompanies him on the outskirts of his activity. No organizational or institutional reform can release him from his personal responsibility. If it reduced or veiled this responsibility, it would have to be considered detrimental to institutions of higher learning.

The socialist reform of the system of higher education not only makes the university teacher go along outwardly and pragmatically with administrative regulations, which he cannot shirk anyhow, but also requires him to often transform and always improve his teaching abilities and his socialist teaching efficiency in his educational workplace in keeping with the demands of contemporary times. It is probably not a very fit comparison, but as in any other workplace one also has to speak about a teaching work--stand of the university teacher in his institution. This stand is linked by means of the dialectic process of education with the whole system of stands of the scientific, didactic and pedagogic dialogue of the programmed specialities. The dialogue is multifarious and of long standing and its culmination, together with the professional diploma, hands over to society a concrete, socialistically shaped personality. The perception and improvement of his work-stand puts many obligations on the teacher. It intensifies his sense of being an adviser, increases his understanding and concern at the intellectual sphere and the personality range of those who are just enrolling and those who have gone through many things with him, those who are graduating and those who, imbued with the sense of the dialogue entered into at school, resume it from their own workstands. The intensity of this attitude also brings him personally close to the students and makes him create and use opportunities to get in touch with the young, to talk with them and co-operate on the plane of the studied and not only taught subject. It also leads to an increasingly more personal involvement with the young. The result must be what today is usually demanded from the contemporary institution of higher learning, namely a thorough shift in the relationship between theory and practice — the theory gained in the process of education and the practice conceived as educational activity, specialistically higher and broader in shaping a socialist human being and performed on various levels of life. The contemporary historical and social demand for knowledge and the ability to act, for personal conduct and moral, ideological and cultural self-discovery, particularly on the part of the young generation, intensified by technological advance and a qualitative leap in the human development of man has put an end to the teacher's staying high in the clouds of the traditional academic ivory tower and retreating to the presumed and sometimes presumptuous neutralism of teaching a shapeless human mass filling up the lecture hall by right of matriculation. Even if this studying quanlity increases and differentiates on various educational levels, it cannot remain an anonymous, faceless group for the university teacher today; because something new is happening in the contemporary school what seems to reel of the modern thread of its reform. Subjects begin to entwine and the community of university consciousness is shaping up which makes the university teacher constantly aware of conducting a dialogue with every listener in his class; every listener is also engaged in a dialogue with him and its quality, to a certain extent, depends on the teacher. And the dialogue is theoretical, and even more so — practical since the teacher and the student do not only listen to each other, but both remain in a mutual psychic relationship and words wait to be confirmed by action and action finds inspiration, often substance and substantiation, in words. There is no individual, at times isolably sublimed teacher on the steps of the ivory tower and down below, in a hierarchical distance, an ordinary collection of objects. One of the expressions of the modern institution of higher learning becomes a postulate that its teacher should be as close as possible to each and every student in the process of teaching and education with his knowledge and personality so as to make each student jointly responsible for the common pedagogical effort.

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To meet this educational task, a university teacher in a socialist institution of higher learning must be its cohost, participate in its organization and management, shape its educational effectiveness and have a sense of not being a sovereign authority and a wage-earning instigator but an authentic educator and participant in the self-government of his university. Hence, while working on modernization of the socialist school, the university teacher will have to adjust to its growing tasks and needs, to his rational participation in solving these tasks and his getting in touch with the students as closely as possible. The socialist school of today and perhaps even more so the school of tomorrow, with its growing intellectual enlivenment, is being deprived of its traditional and class-oriented intellectualism; it ceases to be an allienated hotbed of minds and a cultivation of unreal ideas with the omission of what the mind and ideas derive from or what accompanies them while being structurally inaccessible. Gone is the disregard of the body, social factors and the sphere of emotions and feelings. In the new school, knowledge, science and teaching cannot abstract from action and, without advocating narrow utility, it must train for action not only anonymously and in perspective, but through education and teaching and by developing in young students concrete goal-oriented habits of professional, social, moral and cultural activity. It must also take into consideration the whole complex personality of a student. It is worth placing emphasis on man and limit the use of the term "young", which in the traditional school used to describe somebody who could and had to be passively filled up with prescribed information like Fénélon's pitcher, but who was considered unable to take hold of the ears of his pitcher and who was only to learn and to leave action to other people. Today the university teacher faces a man who, while learning, also wants to act, who is conscious that since his birth he has been learning and acting and that he will not stop learning through action till his death. Now this problem absorbs the institutional management of the school and attracts the teacher's involvement. This means handling the human heritage and planning and performing it in such a way that it becomes unacceptable to produce a human "waste product" or a man or graduate who, filled with multiknowledge, will be helpless in action. The university teacher's participation in the management of the school must presuppose an incessant feedback between himself and the school and those whom he and the school educate in order to make the university's demand feasible. The teacher's professional ethos, his personality model and his pedagogical university institutionalism are coupled with the student's ethos, his personality structure and his university community. The thread of this feedback is mutual confidence, teachers' self-confidence as goal accomplishers and implementers of the socialist institution of higher learning's plans to educate and socialize, develop students' personality and prepare them for life and work in the socialist society and full existence in the contemporary world. It is also the young generation's self-confidence that the goals and plans of the socialist school become their goals and plans, well thought over and considered their own and for whose implementation they are ready to share responsibility with their teachers and the whole university community. In this feedback the achievements of the teaching process can be measured with external standards, even with labor regulations used for computation, but the achievements of the joint educational process and its effectiveness cannot be measured with any social, moral, cultural and ideological standards as yet. So while maintaining the principle of educational check-up for graduates through the criteria of their professional work and their life stories, one should accept as the standard of their educationally effective preparation the pedagogical attitude of the university teacher, his professional ethos, his model and personality partnership with his students and university teaching community as a joint factor of potentiality, measure and value of meeting educational goals and socioeducational tasks. It is necessary to regard the teacher and the university as the main, though not exclusive, educational standard and perhaps without any apprehension revive the old truth that like teacher (and the school) like graduate and like society.

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It makes one stop to think and have a closer look at what has been called the "professional ethos" of the university teacher. What matters here is not the "profession" but the "professional ethos". There is something more and something less to it than the "profession" and although the term "ethos" brings back the distant past of Hellenic Olympic Games, its content still seems to sound contemporary. "Ethos" is not only a self-initiation in a narrowly performed professional activity linked with the knowledge and skill equally narrowed to its size. For a Hellenic "paidagogos", "ethos" was a specific kind of a teacher's existence and attitude, his habits and customs, knowledge and at the same time art of dealing with man, which commanded respect, confidence, friendship, understanding and affection. If it is to be a "professional ethos", then applied to a teacher, it undoubtedly means his background in a definite field and his scope of knowledge in which he educationally participates with the students the teaches. He just "participates" and not imparts knowledge and in this ability to participate is to be found the meaning of the university teacher's "professional ethos". In the traditional school, the teacher was often called "master" and was shaped following the pattern of a "master" who dosed out knowledge to his apprentice and whom he "qualified" at a prescribed time as a journeyman i.e. exempted him from the duty to learn and directed him to an occupational activity. In the school we want to have, there will be no "masters" and the postulate of continuing education and training abolishes the initiation from apprenticeship. What remains is "participation" of the teacher and the student, a bold and friendly readiness to pursue the challenge which involves both of them: let us go through the text together, let us check that equation again, let us analyse that case, examine that construction, cross that experimental plot. The spirit and the whole content of the teacher's "professional ethos" which contemporary times have been awaiting are contained in the plural "us" and not only individualistic "me" or "you": "I — the source of knowledge, you — its passively engrossed listener". The university teacher's "professional ethos" is no imperative but simply a possibility, an inner pedagogical need and an ingrained and incessantly active habit or custom, hence, "ethos" to communicate with students through the dialogue of thoughts, words and conduct, devoting one's knowledge, time and effort to them in the way prescribed by the theory of education and implemented each time by the teacher, conscious of a concrete educational goal, that is in a pedagogically "professional" way. So one can say that the teacher's "professional ethos" is a yardstick of his pedagogical conduct, a yardstick whose spirit level in each action proves to be his individuality and personality in their full depth and extension.

That is why the university teacher, conscious of the scope of the yardstick of his pedagogical "ethos", must be a "somebody" i.e. somebody not in the traditional and scholastic sense — a "master" of the students' thoughts and feelings, but a "somebody" who is perceived by the students as worthy of confiding their thoughts and feelings; so that a student could affectionately say that he can always find in him somebody he is looking for and with whom he would like to trustingly and confidentially fathom his own existence. On this "ethical and professional" being a "somebody" rests the pedagogical, didactic and educational performance of the university teacher. This presupposes on the part of the teacher, first of all, the need for consciousness *de jure* and performance necessity *de facto* of keeping the balance between the curriculum and the educational plan, between the required intellectual rigor of the teacher and that of the student and educational and mutually educational factors, between the cognitive sphere, systems of specialized knowledge and skills, even professional practice, and the sphere of individual experiences, social, moral cultural and ideological attitudes and the personal life and conduct. The university teacher with his educational personality creates around the student a "pedagogical climate" where education mingles with training and becomes a common cause of the teacher and the student due to the fact that both face an opened horizon in front of which both feel like being a "somebody" personally and autonomically, a "somebody" thinking, searching and checking and living through his thinking, pursuing a definite goal and acting. The university teacher becomes this "somebody" in a peculiar way since it is he who opens the horizon to the world, man and society and raises questions to which he is not alone to give answers and makes the student sensitive to monitoring answers coming from the world, man, society, its culture and civilization. That is why the teacher does not remain a "somebody" in his academic work as a static individual, specialistically and pragmatically qualified once for all. His being a "somebody" as a teacher undergoes constant transformations with each group of the newly-enrolled students, it transforms in everyday contact with them, changes with transformations of the surrounding reality and demands from him constant updating of his being a "somebody" as a teacher and educator today and tomorrow. The matter is even more complicated since the university teacher is simultaneously a research worker; while teaching and educating, he also has his finger on the belt of the development and progress of knowledge and science, the development of learning about the world and man and ways of transforming them; he is also a "somebody" who is responsible for the historical and social reality in which he and his students are to find themselves. There is only a question how he is supposed to educationally participate in their finding themselves because if he fails to adjust himself properly, the reality, the present day and its demands will discredit his methods and standards of pedagogic action.

Thus for the university teacher to be a "somebody" means to have a possibility and to know how to dialectically handle his own potentiality to carry out research and similar potentialities of his students and to express it in the curriculum and in educational, social, cultural and ideological references. This is so because the program and didactic material the teacher has available in his educational principle as well as the student with whom he remains in an educational dialogue presuppose two cohesive goals: professional preparation of the student and the shaping of his humanistic attitude. Both require from the teacher not only to find out what is timely in science and what is man's current demand, but also to get ahead of the scientific and educational requirements of tomorrow, to anticipate the changing social references and to control the process of educational "data" through their dialectically inherent professional and human "tasks" of the university graduate-to-be. This, in some measure, "material" scope and content of pedagogical activity constitutes the structure of the university teacher's "professional ethos" and becomes a methodological standard of his pedagogical efficiency. And it is just here that one has to clearly realize the difference between the research worker and the university teacher and understand why and how the latter is and has to be the former and the latter in his post at the university. The university is not only an experimental research center of impersonal laboratory processes or purely workshop undertakings of observation, intellectual analysis, dry formal conclusions and resignation to discovered and established regularities under a research worker's supervision and with his technological aid. Yes, each institution of higher learning is also a research center — from it come the majority of papers and scientific and research publications. However, its specific character consists in the fact that its laboratories, specialized workshops, means and instruments, and research findings are always coupled with education and teaching, that in its laboratories and workshops science is created, directly and indirectly linked with the process of creating people for whom it is a soil cultivated by theory, but also fed and enlivened by the most broadly conceived social reality shaped with and by its economic, political and cultural existence awareness which is brought to the university and carried out of it by the students. This property or this spirit of the university laboratory even equipped with all technological achievements does not exist in the university without the spirit of studying, without the accompanying workshop of human analyses, creation of human conduct systems, its stimuli and plans, decisions and personal responsibility. The university teacher as a research worker and educator is a dispatcher and manager of this complex process in which research and science, although not without a beacon-like significance for him as a research worker, is only a means for him while education through the laboratory and research workshop — his main goal set for him by the very structure of the university. To know how to find oneself in this research-laboratory and education-workshop linkage, how to control it dialectically, how to imbue the material subject with the personality subject of the student, means to see and appreciate the whole subtlety of the "professional ethos" of the teacher as a "somebody" because of his function as a university worker and an educator by the appointment of society.

Hence, one can say that the socialist "professional ethos" of the teacher of the socialist university is the active and creative awareness of the necessity to combine research activity with full teaching and educational involvement in the professional and character shaping of an individual for life and work in the system where and for which the highest value and sociohistorical task and reason for its existence is man. The research goals as well as professional and personality reasons seen in the perspective of the system by the university teacher must constantly accompany his decisions and selection of criteria, ways and means to obtain the desired scientific, research as well as educational and teaching results. These criteria, ways and means each time become dependent on individual and collective systems of the teacher's work and conduct situations and his students. They will never be codified unambiguously or applied uniformally since the very goal of education and teaching must be authenticated and evaluted differently in the process of its pedagogical task implementation. For this reason the university teacher with his "professional ethos" can often face two antinomies, crucial for his work. As a research worker, he seems to be exempted from axiological claims, but as a teacher and educator he can in no way abstract from the problem and the system of values of the socialist society. Hence, his selection of his own activity goals must combine the research aspect with the teaching and educational one and, following scientific objectivity requirements, simultaneously take into account all his own and his students' elements and factors. Thus he must use a "code", a "statute" which is actually nonexistent and which must be embodied in his awareness of his own teacher's "professional ethos" and the more general — "professional ethos" of the institute of higher learning. The core of this "joint ethos" is the goal of socialist education and training, shaping of full man who enriches his existence and activity with human value and thus reaches his specific human goal. Following this higher education goal and in this perspective, one can and must evolve a university teacher as an "educational model" without overlooking the "model" of the student.

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The "evolvement" of these models, however, cannot be reduced to theoretical and excessively stipulatory considerations, but must lead to such an activity, within university education, which would result from the university teacher's and his students' conduct in a goal-oriented or "model" way and which would affect their behavior normatively. What is really important here is a consistent and dialectically concrete implementation of goal-oriented education and training and all these equally dialectically concrete ways and means which directly and indirectly lead to it in the teacher's everyday activity. However, only theoretical knowledge about this goal and only theoretically vague "educational models", otherwise meriting attention, do not make a teacher a "model" of education. The teacher becomes such a "model" when he can not only speak about virtues, properties, duties or even happiness of socialist man, but when he can transform these big words into the expression of virtues, properties, duties and happiness of a definite socialist student and, in the future, a definite socialist member of a family, employee, definite civic duties and definite cultural participation. And such a teacher's model cannot be decreed, such a "model" of a teacher and a "co-model" of a student shape in their everyday pedagogical co-operation and conduct. Old Aesop used to say, "pathémata mathémata" (co-taking is teaching). And in this "co-taking" the pupil engraves the model of the teacher and the teacher becomes the sketch by his pupil.

That is why the "educational model" is produced not through "what", but rather through "how" a teacher teaches, behaves and uses his personality in the everyday dialogue with his pupil and through "how" the pupil transforms in this qualitative university coexistence. So the quality of classes conducted by the university teacher, the subject and object quality, the quality of his attitude toward what and whom he teaches, the quality of his backround and scientific achievements, the quality of his teaching experience, the quality of his social attitude in private and in public, the quality of his culture, his moral and ideological quality, all these are the material, thread and warp from which the fabric of the "educational model" is woven. This quality taken together produces a picture of a teacher, scientist and educator for whom the student, his present and future, is everything, or a university employee who probably will always be backed up by his institution's regulations and administration, who can train with information and tame with fear, but who will always remain aloof hrough a bowing acquaintance with his students and they will be unknown and strange to him. To such a teacher-official the student pays back with the knowledge executed from him, to the teacher-educator — with his personality which the teacher amicably helped to shape and with which he carries from him the acquired knowledge and assigned knowledge of life how to be a human being. With this knowledge he also carries away the qualitative picture of his teacher as a "model" which defies any copies, but which remains in his heart and memory as a binding reminiscence of mutually shared nobel experience.

Such an "educational model" shaped by the teacher proves to be something more than a fleeting factor since it becomes an effective instigator of the intellectual and human development and progress of the student. It is as if a reflection of the teacher's personality which enlightens classes, brings in joy and happiness, makes a teacher a longed-for lecturer and the difficult and onerous classes pleasant, which gives students self-affirmation and creates an intellectually and educationally stimulating atmosphere of a close-knitted community. This usually self-effacing model of the teacher, confirmed by kindness, understanding and tolerance without an intent to please the audience at any cost, helps to bridge the gap between the teacher and the student, to develop mutual respect without insipid obsequiousness, to engage in individualized instruction and education and to concentrate on students with no harm done to the academic subject being taught. So it means a didactic and educational self-control on the part of the teacher without an excessive self-esteem, but also without giving up one's own personality. The teacher also has to remember that nobody but the student can better and more artfully weigh this quality. The awareness of being such a "model" of the quality undoubtedly requires from the teacher a lot of watchful control, demands from him an increase in his pedagogical efficiency and must boost his readiness to implement the curriculum and make him sensitive to what the student experiences intellectually and emotionally, and that is not included in the curriculum. Thus there must be the awareness that the teacher at the university keeps on teaching and educating and planting seeds in the student's mind and conduct through his quality as a "model". Because even if the teacher's words fall on the student's deaf ears, his personal educational example wins the student over and often helps him to achieve what seemed beyond his reach.

That is why the teacher proves to be such a vitally important factor in the transformation of higher education and education in the socialist society whose core is man and where each economic, social, political, cultural and ideological undertaking is ultimately man-oriented. Man in this society enjoys not only great care and is happy with his individual happiness, but is also a co-creator of the socialist society, develops and improves with it and at the same time creates it through his education, culture and his social and ideological attitude and becomes its image. The education of such a man becomes the task of the new school, new pedagogical and didactic system and in its implementation — the task of the new and often trained anew socialist teacher. One has to remember and constantly take it into account, however, that the teaching and education process in the socialist institution of higher learning, its atmosphere, standard and effectiveness, although dependent on the teacher's scientific and intellectual backround actually results, first of all, from his pedagogical "professional ethos", his sense of personal responsibility, his personal quality of the socialist educator. This is so because the teacher himself is only a surety for the student whom he teaches and educates and for the human being whom he hands over to society and for whom he is mainly responsible to the socialist community.

Я. ЛЕГОВИЧ

Преподаватель вуза — профессиональная этика и воспитательный образец

Высшее образование требует, без сомнения, реформы, которая, однако же, не должна заключаться только и единственно в изменениях в области управления, не может также ограничиться правовыми и организационными действами. Реформа должна повлечь за собой обновление самой внутренней структуры вуза. Одним из главных и особенно насущных требований в процессе этой реформы являются педагогические и дидактическо-воспитательные преображения самого научного работника вуза, которого в Польше называют „академическим учителем".

Размышляя о его облике и о тех изменениях, которым он должен был бы подвергнуться, автор статьи приходит к выводу, что самое важное заключается в том, чтобы его действия и поведение стали бы доброжелательными и дружескими в общении с молодежью. Это не менее важно, чем стремление формирования, полной достоинства и идейной увлеченности, личности молодых людей.

Ибо одним из проявлений современной высшей школы и ее задач, а в настоящее время это стало необходимостью, чтобы работающий в ней преподаватель, благодаря своим знаниям и своей личности, мог в процессе обучения и воспитания стать кем-то очень близким для учащейся молодежи, вообще и для каждого молодого человека в частности. Со своей стороны каждый студент сможет отплатить ему таким же дружеским чувством и нести вместе с ним общую ответственность за совместный труд формирования человека.

Это требует также повышения и укрепления значения преподавателей вуза — действительного соучастника в его коллективном управлении, а кроме того более непосредственного общения с учащейся молодежью. Несомненно это может оказаться весьма полезным в вырабатывании и поддерживании у студентов навыков общественной, моральной и культурной активности, не говоря о профессиональной и способствовать правильному пониманию личностной сложности молодежи и лучшему ее воспитанию.

Поэтому можно сказать, что „профессиональная этика" преподавателя не является каким-то особым императивом, а просто возможностью, потребностью и в определенном смысле навыком в общениях с учащейся молодежью. Это общение будет выражаться посредством диалога мысли, слова и собственного поведения. Такой сознательный диалог в дидактике ведет к воспитанию молодежи.

Благодаря этому „профессиональная этика" преподавателя становится не чем иным, как мерой его педагогического поведения, в котором может полностью проявиться его индивидуальность и его личность, которые окажут свое оплодотворяющее влияние. Таким образом преподаватель осознающий свою этику должен действительно стать и остаться тем, в ком студент увидит кого-то заслуживающего его полного доверия, кому может поверить свои мысли, чувства и переживания не обязательно только лишь интеллектуальные. Такому человеку студент захочет открыть свои духовные запросы и позволит ему воспитывать себя.

Благодаря этому создается своеобразный климат воспитания, в котором обучение им насыщается и проникается и в результате становится общим делом как преподавателя, так и студента. Не менее важно также и то, что преподаватель вуза, благодаря своим научным исследованиям и научной работе, учит и воспитывает своим личным примером ученого и своею личностью преподавателя, которая постоянно и всюду привлекает молодежь и воздействует на нее.

Ибо если иногда слова преподавателя ускользают от внимания студента, то личный пример воспитателя всегда остается и не раз облегчает молодому человеку то, что кажется ему непосильным.

. Legowicz

Profesor académico — ética profesional y modelo pedagógico

La enseñanza superior exige indudablemente reformas que, sin embargo, no pueden consistir única y exclusivamente en cambios administrativos ni limitarse a reformas de tipo jurídico- organizativo. Las reformas deben centrarse en la renovación de la estructura interna de la escuela superior. Una de las demandas de mayor envergadura en el proceso de dichas reformas es la transformación pedagógica y didáctico-educativa del propio trabajador docente de la escuela superior en el así denominado en Polonia „profesor académico".

Pensando en el modelo de profesor y en los cambios o modificaciones al que éste debe someterse, el autor llega a la conclusión de que lo más importante es que su actividad y su conducta (actitud) consistiera en una relación benévola y amistosa para con los jóvenes, cuyo único y primordial objetivo sería el de formar la personalidad del estudiante, una personalidad digna y abierta.

Así pues del modelo de la escuela superior moderna se desprende la necesidad de que el profesor empleado en ella pudiera desempeñar en el proceso de la enseñanza y la educación, gracias a sus conocimientos y su personalidad, el papel de íntimo amigo de los estudiantes, y que esta intimidad permitiera a la vez que los estudiantes compartieran su responsabilidad en la tarea de la formación del hombre.

Esto exige también tanto el aumento de la imporancia y prestigio del profesor académico como verdadero participante en la administración común de la universidad, como también su mayor y más directo acercamiento a los jóvenes estudiantes. Ya que esto podria contribuir mucho a la obra de despertar el interés y luego acostumbrar al estudiante a la actividad social, moral y cultural, como también profesional, lo que a su vez ayudaría al entendimiento apropiado de la personalidad compleja de la juventud y, paso seguido, a saber educarla mejor.

Por lo tanto se puede decir que la ética profesional del profesor no es ninguna demanda o exigencia excepcional sino más bien la posibilidad, necesidad y en algún grado la costumbre de habituar al estudiante — mediante el intercambio de ideas, palabras y modelo de actitud personal del profesor — a un diálogo conscientemente preparado y conscientemente aplicado en la labor didáctica y docente.

Gracias a ello, la „ética profesional" del profesor no es otra cosa que la expresión de su actitud pedagógica, en la cual puede reflejarse completamente su individualidad y su personalidad, dos factores que pueden estimular y fecundar ideas y actitudes. De allí que el profesor, plenamente consciente de su „ethos", debe convertirse en alguien verdaderamente digno de confianza a quien el estudiante pueda confiar sus ideas, sus sentimientos y sus experiencias no sólo de tipo intelectual, y, ante quien el estudiante quiera abrirse espiritualmente y cuyo ejemplo educativo quiera seguir. Así se crea un excepcional ambiente didáctico en que la enseñanza se vuelve educación siendo el objetivo común tanto del profesor como del estudiante. El problema es tanto más importante que el profesor académico, mediante los trabajos de investigación que realiza en este campo, instruye y educa de manera especial con su ejemplo de científico y su personalidad de profesor, que siempre y continuamente influye en los jóvenes.

Porque aunque al estudiante se le olviden las palabras del profesor, siempre tendrá presente su personal modelo pedagógico que, frecuentemente, le facilita realizar lo que le parece sumamente difícil.

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A Teacher's Duty

by

WITOLD BENEDYKTOWICZ

In the recent nationwide discussion on the reasons for the several-year-old crisis, specific and acute imperfections and shortcomings in the morality of work have been stressed. Apart from the criticism of improper faulty organization of work, they have also pointed at the unreliability, carelessness and negligence of workers, the lack of economic and psychological motivation, frustrations and also a dearth of future prospects. The criticism has also lashed the Polish work ethos which, apparently, is either nonexistent or dangerously violated and undermined. Following this trend, the debaters often referred to the evangelic ethos of work as the driving force of development of many Western countries.

Without going back to Max Weber and his *Die protestantische Ethik*, it is worth recalling at least some of his remarks on Martin Luther's views on profession or occupation. Particularly noteworthy is the relation between a profession and a calling so much emphasized by the Reformer from Wittenberg. The relationship is quite evident in the German language where *Berufung* means a *calling* and *Beruf — an — occupation, a profession*. Luther taught that to exercise one's occupation or profession is to pursue one's calling and that the former constitutes the everyday fulfillment of the latter. Professional activity thus gained a sanction, not only moral, but religious as well; seen this way, work was absolved from the stigma of punishment and curse, which were to result from the Fall of Man.

Luther's concept of profession or occupation was of a breakthrough importance for Christian morality, particularly, the morality of work.

In English and French there is also association of a profession or occupation, though not only, with a calling but with a certain spiritual quality of a religious tinge as well. *Profession* is nothing but a Latin *professio,* which means not only *trade, occupation, state* but also *public declaration, declaration* (also of faith) and finally — *a declaration* or *a vow made on entering into membership of a church or religious order.* The shaping of the work ethic in England and partly in France (through Huguenots) was not influenced by Luther's views but by those of Calvin, who emphasized the value of professional work as one of the means to check a Christian's worth (the predestination doctrine).

These lexicographic examples, which have no counterpart in the Polish language, merit reflection when one is talking about the morality of work. Both of these examples support the view that professional work is not only earning money, routine, result of necessity or compulsion, but one of the essential factors of the quality of life. This view is used to appeal not only to the manual and mental dexterity of a worker, his time and legal obligations resulting from the employment contract, but to deeper layers of his personality, to man's moral sense, his sense of duty, his conscientiousness, imagination, social attitude and integrity. The examples are especially valuable for teachers since they help to understand their function as allegiance to their individual and social calling, declaration of some values, moral option and will to serve the community.

The crisis in our country also affected education, science and school. While criticizing the present state, one also looks back and appreciates the accomplishments of the school of the past. People say that formerly teachers were better prepared for their job, were more competent and dedicated, pupils were more diligent and orderly, textbooks were more reliable and readable and the school atmosphere was more pleasant and healthier. Such comparisons also favor colleges and universities of yesterday. Although less numerous and less accessible due to tuition fees, they boasted outstanding scientists who produced highly skilled graduates as well as notable scientific and research findings. Students appreciated all these values much more than they do today.

Such a comparison of the past and the present overlooks some negative phenomena like acute poverty of a large part of the students, shortage of accomodation in dormitories, restrictions imposed on university autonomy, unrest and violence in colleges and universities, classroom ghettos, poor health of students etc.

Secondary schools were also not easily accesible to poverty-stricken young people and employment prospects for high school or university graduates were rather gloomy due to the general economic situation of the country. Because of the poverty of the state, it proved impossible to fully put into effect the principle of a universal seven--year elementary school. There were great differences between the network of schools in the rural and urban areas. The country school wrestled with the shortage of teachers, poor housing conditions and problems resulting from the poverty of the rural population. Nevertheless, people are correct in saying that the school of the 20--year prewar period of Poland's independence managed to prepare one generation of Poles for the hardest trial of all in the nation's millenium. The resistance movement, the fight for liberation and then the reconstruction of the country are the finest certificate granted to the Polish prewar school.

As a graduate of that school, I still remember that even then there were complaints about shortages and shortcomings of the school system. Our teachers used to say that our predecessors in school had been more diligent, more orderly, more obedient and ambitious while our parents used to tell us that former teachers had been excellently prepared for their job, that they had been conscientious, just and dedicated. The glamor of the school of old was praised although it was a school of the time before independence was won and so it was not entirely Polish and not completely national. So one may ask how far into the past one may go with such a praise of the old school, its students and teachers. If one treated the past without any reservations, one would have to admit that the school crisis is permanent.

It was Andrzej Frycz Modrzewski who, in the times we are proud of as the golden age of our culture, complained, "So interest in learning has cooled down, the minds which (as they say) could yield good crops, out of despair, take to what brings profit, know-nothings enjoy the honors offered by science and like work-shy drones (as a poet says) exploit someone else's feed'. Since scientists do not get the deserved honors and those who do not care for science, the Republic and faith are in want of many important things whose accomplishment belongs to the former and the latter". (*About School*, Chapter 4).

If the school crisis is permanent, the present criticism of education should be considered correct, but one should also avoid a farfetched negative assessment of the present state of things. The criticism ought to stimulate useful changes and reasonable reforms which the school has always needed while helping and serving society in its development. Likewise, teachers are in need of the criticism and self-criticism of their moral and professional attitude so they could participate in the improvement of the school and its function in social life.

We are lucky to have models to follow since beside Polish kings, writers, artists and prophets, we could draw a long list of Polish teachers. Not to go too far into the past, we could start with the Rev. Stanisław Konarski, justly awarded the Royal Medal with the inscription *Sapere auso*. He saved Polish education from the darkness of the Saxonian night and laid foundations of the further development of the national school. High on the list would be some professors and educators of the Knights' School and then Stanisław Staszic, a teacher and organizer of education, promoter of Polish mining and metallurgy, first rector of Warsaw University (this seems to be the proper title of the Chairman of the General Council of the University and previously — the Chairman of the School of Law and the School of Medicine in Warsaw). There would also be the authors of the reform of national education and some activists of the first Ministry of Education in the world. Beside Kołłątaj there would also be Tadeusz Czacki who, although not a teacher, was an outstanding organizer of education. Beside Piarist teachers such as Onufry Kopczyński, Ignacy Przybylski and Edward

Czarnecki, their lay, sometimes younger, colleagues such as brothers Śniadeckis, Samuel Bogumił Linde, Joachim Lelewel, Feliks Bentkowski, Jan Wincenty Bandtkie and Kazimierz Brodziński have to be mentioned.

Then followed a thirty-year gap in Warsaw. We would have to go to Cracow and especially to Poznań where after 1831 conditions for the development of national education were more favorable. But the wave of Germanization was soon to come here too while Warsaw reentered the history of Polish higher education with the glorious name of the Central School of Warsaw — a mere episode, one would say — but whose seven-year existence made an epoch. In the big tableau, beside Rector Józef Mianowski, Jędrzej Śniadecki's student, there would be portraits of Tytus Chałubiński, Ignacy Baranowski, Benedykt Dyboski, Józef Kasznica, Teodor Dydyński, Karol Estreicher, Adolf Pawiński and Stefan Pawlicki. Among the students who became teachers and educators of the nation in a broader and narrower sense, Piotr Chmielowski, Aleksander Świętochowski, Adolf Dygasiński, Józef Kotarbiński, Henryk Sienkiewicz, Jan Baudouin de Courtenay, Adam Antoni Kryński and Bolesław Chlebowski deserve to be remembered. Some of them witnessed the rebirth of Poland and in that relay race of generations handed down the brightly burning torch of science and valuable moral models to their successors.

The heroic period in the history of Polish teachers was a unique institution of the Flying University. One of its graduates, writer Stefania Sempołowska said, "The Flying University was not only an institution of higher learning, but at the same time a school of social life".

When the gates of the Central School in Warsaw were being locked, Repolonization of universities in Cracow and Lvov was beginning and that had a tremendous impact on the continuation of Polish scientists' work and education of the nation. While at the end of the 18th century, the Polish nation was taken into bondage, they were carrying the canon of national education just like Jews had been carrying their Torah, which helped them to survive the Babylonian Captivity. From that time, for a century and a half, the torch of Polish education did not go out; dimmed in one region, it was kindled anew and shining bright in another. We owe this continuity, which survived the captivity, to these very people — Polish teachers, Polish scientists, Polish poets, prophets and artists.

Thus the restored state had something to refer to, more than that, it could almost directly transfer the light of education to the liberated home. And then, after a relatively short period of 20 years, a new heroic chapter in the history of education had to be started: clandestine teaching — from elementary to university level. Again the Polish teacher and his pupils were put to test in which, despite huge costs, they came off with flying colors. The victory would have been unthinkable without the legacy from the end of the 18th century enriched by the century and a half of the captivity.

The galaxy of Polish teachers is full of personal models and proves that the teaching profession in Poland has been something more than a professional group, that it is a real calling, a pro- and confession (of faith) which sets great praxiological and moral challenge. At the same time, such a review of Polish teachers of the last 200 years clearly shows how numerous were the ranks of people who lived up to this great challenge and standards and who in many cases surpassed them. Through their attitude and actions they cocreated these standards and handed them down to the coming generations.

The train of thoughts about the ethos of the Polish teacher presented here may imply that a hagiographic approach to the compilation and description of standards and postulates is recommended. Let me assure you that it was not my intention, but, on the other hand, it would have been very difficult to give up such a fascinating biographical material, which might prove useful for those who want to study this problem seriously and thoroughly. It is the more so advisable since these standards have been shaping and materializing in the biographies of real people acting in real-life situations. So it is time to consider ethical postulates concerning the teaching profession here and today.

The postulate of unselfishness should be given priority. Polish scientific and teaching achievements have very rarely led to material well-being. If a Polish scientist or teacher happened to become rich, it was rather due to some non-pedagogical factors such as inventions and the resulting patents, economic activity or inheritance. In socialist Poland it is even less becoming to pursue profit and self-enrichment and in fact it is even impossible. The problem is, however, to make the requirement of unselfishness a dominating factor in the teacher's attitude right from the start. This would be something like taking a religious vow of poverty. On the other hand, however, it is not good when scientists and teachers are pauperized because they are tempted to take sideline jobs and this is not conducive to effective research or teaching. In the galaxy of Polish teachers presented above, we can find unusual examples, sublime and, at the same time, full of simplicity and moral beauty, examples of unselfishness. It is a non-transferable factor of the teacher ethos.

The next requirement is that the character of the teaching profession should be that of service. Many kinds of work are of that character, but teachers' work is real service. This we can read in the testament of the teachers of the nation who had to work in the nation's captivity. There are many sides to this service. First and foremost, it is the teacher's service to his students or pupils to whom he imparts his knowledge and experience in order to prepare them for their own professional life and in this way — for their service to the nation. Furthermore, it is his service to science and moral values without which society's life would be impoverished. Finally, it is the service to the truth. Candidates for the doctor's degree vow service to and the pursuit of the truth during the conferment ceremony (*ut veritas magis propagetur*). It is indispensable to the development of science: "When the air of the truth is clear, everything blossoms out..." (Norwid). Here one has to acquire knowledge constantly and kindle in his pupils a peculiar alertness and sensibility because as Jan Śniadecki put it, "in the pursuit of the truth we tread on traps of error laid around. Although the reign of the former, full of benefit and glory, should be permanent and eternal, yet error quite easily clings to the human mind and enjoys epochs of leadership" (*An opening address to a public session at the University on* *the 15th of September 1811*). The service carries numerous obligations and sometimes severe and unpleasant rigors. On the other hand, the service character of functions and activities often softens the harshness of these rigors since one has to look at the goal of the service. In the service of teaching it is a noble goal and its fulfillment does a school worker credit. This noble character of the teaching service does not have to be formally confirmed, it is better, however, when the school system prevents what Frycz Modrzewski complained about in the already quoted excerpt, "Since scientists do not get the deserved honors and those who do not care for science, the Republic and faith are in want of many important things...". In general, teachers in Poland enjoyed a rather high prestige and they still seem to enjoy it in spite of some depreciation of the profession. The service character of the teaching profession assumes some discipline and subordination or superiority (not always nice and comfortable). Hence, also comes a requirement or just an order of dutifulness although duty, regardless of the line of authority, ranks high in the teacher's code of ethics.

Ethics may be expanded as the science of duties. It was so in the ancient times; the stoics ethics was built that way. Duty was understood as obedience to the moral law. In this vein, Cicero approached ethics in his *De officiis*. "Duty is the necessity of a given action coming from the obedience to the law", said Kant, the most outstanding master of the duty ethics. In the Old Testament the principle of duty was expressed in the obedience to the Law of God — the Torah. Likewise, the principle was formed in the New Testament although it was enriched with new motives, with love as the most important one. Some duties are onerous and their performance sometimes requires coercion. However, some commentators of the *Torah* indicated that its underlying principle is freedom. This motive was taken over and magnified by Calvinist theologians, who taught that precept is consent. The Decalogue is a code of freedom expressed not in the imperative but indicative mood, "you may live so as not to violate prohibitions...". It probably befits teachers to understand their code of duties in a similar way, so that an order would be a consent for them and duty — freedom. Many good examples may be provided by the galaxy of Polish teachers mentioned above for they were acting under foreign rule, but educated their pupils to serve the nation in the spirit of freedom. Such a performance of one's duties is also a source of satisfaction and joy from doing one's work.

The requirement of responsibility is equally important. The teacher is responsible to society, his school, his pupils and himself. Of specific importance is his responsibility to his pupils. There are obviously some limits here, there are probably some exceptions — lazy, alienated ones, impervious to knowledge, unruly, recalcitrant. Such individuals will be held responsible sometime in the future for their ill will, selfishness, lack of social considerations, wasted opportunities offered to them by school. But these are certainly only exceptions, perhaps they are amenable to education, particularly under the guidance of unceasing wise educators. Education is a kind of a dialog: the pupil is a question for the teacher, but at the same time — a respondent; the teacher is an answer to the pupil, but at the same time — a question. Responsibility is an art of giving answers and our personal and social existence is of a dialog character. Responsibility is not only a submission to formal appraisals, but also an important component of a moral attitude and a reality that lends itself to ontological descriptions: responsible existence, asking and answering existence, dialog existence.

Any ethics assumes a requirement of the acting subject as well as goals and means of action undergoing perfection. A conscientious teacher will not neglect his self-education, self-perfection, improvement of his workshop and his pupils. The idea of permanent education has increasingly been catching on and society and the state have been taking on ambitious tasks in this field. The social development and technological advance promise to provide more and more free time and fewer and fewer manual jobs. It still does not seem evident in our country perhaps because of the crisis, but our philosophers and sociologists have been watching the trends and have been promising such developments if only the world manages to overcome the threat of self-anihilation; its spectre today has at least two aspects: a thermonuclear war and environmental disaster.

But one does not have to reach that far into the future to consider the idea of self-improvement, a nonnegotiable component of the teacher's attitude. This path offers many opportunities: one's own research, studies and reading, international exchange, teacher-training courses etc. And once again it is worth quoting from Norwid:

He creates for the nation
who perfects himself...

Finally, the requirement of love also to be mentioned. But can you enforce love? Can one appeal to the teacher to love his pupils? Although religion knows the commandment of love, this commandment can be understood only as a consent: you are allowed to love, you may love. You either love somebody or something or not. Love cannot be decreed even with the moral code. It is also conceivable that a teacher harbors feelings toward his pupils which are quite opposite to love. Nevertheless, it is worth remembering that the precept of love is a consent in its essence. And teachers and educators who have loved their pupils are plenty. So if it is impossible to force a teacher to love his pupils, one may expect or demand from him at least benevolence. Anybody who is unable to love his pupils and unwilling to show his benevolence should look for another job outside school. There are some professions which require something more than professional skills; among them are those of the physician, clergyman, perhaps career military man, maybe lawyer, judge and certainly — teacher. That is why these professions are often referred to as a calling. Although we could tell a physician, "I don't need your love, I need your treatment" and a teacher, "I don't need your love but your knowledge and the ability to transmit it", but there is no denying that particularly in these two fields — treatment and teaching — love (for a patient or a pupil) and high professional and scientific qualifications can be a valuable therapeutic and educational means. Where there is no love for a human being, strictly speaking, a pupil, one would expect from the teacher at least love for his profession, his work and school. One can certainly not give up this kind of love and benevolence, to say the least, toward pupils when expectations and requirements concerning the teacher's calling and the teaching profession are juxtaposed.

The survey of teachers' values or the requirements of the teachers' code presented above is by no means complete. The list may be continued, supplemented, modified and updated. The same holds true of the galaxy of Polish teachers presented in the first part of these considerations which is just a glimpse of the problem and an encouragement for us, at most, as university teachers and research workers to reach for the best tradition of national education and its most outstanding personalities. At the same time, one should not forget that the value of our teachers' ethos will be verified in the everyday life of the school, its teachers and students. Because the things are as Mephistopheles disguised as Faustus puts it to a pupil asking for advice,

Any theory, my friend, is grey
and green is the golden tree of life

В. БЕНЕДЫКТОВИЧ

Учительская обязанность

Учительская профессия это особого рода призвание, символ веры в ценности и их признание, моральный независымый выбор и воля служения человеку и обществу.

В Польше, в связи с экономическим и общественным кризисом, обращается внимание также на кризис школы и воспитания. В какой-то степени кризис можно назвать устойчивым явлением, постоянно сопровождающим школу, которая требует поэтому целесообразных изменений и мудрых реформ. Национальная школа в Польше доказала свои достоинства в эпохе заката государственности, а потом в неволе. В истории польской системы образования блистает галерея заслуженных ученых и учителей, людей полных посвящения, иногда с характером чуто ли не героев. Были периоды, в которых захватчики либо германизовали школу (Пруссия, Австрия либо ее русифицировали Россия). Ведь в таких именно условиях возник в Варшаве в конце XIX века „Летающий университет" — законспирированная школа, не дающая дипломов, но дающая знания и широкое умение в сфере общественной жизни. Общество откомандировало на эту работу самых лучших ученых, а через эту школу прошло много выдающихся поляков. Опыты этого периода послужили основой конспиративной системы образования в 1939 - 45 гг., когда фашистский оккупант закрыл гимназии и университеты, оставляя только начальные школы и школы профессионального обучения, с очень сокращенными программами.

Польские учителя, черпая образцы из моральных и общественных норм своего славного прошлого, понимают и верят в следующие принципы своего учительского долга: бескорыстие, служение науке и её обслуживание, моральные ценности и прежде всего правда, преданность обязанностям их охотное исполнение, ответственность, партнерство. Польские учителя отдают себе отчет в необходимости неустанного совершенствования своей профессии, чтобы принять вызов эпохи и как можно лучше приготовить своих учеников и воспитанников к жизни в наступаещем новом столетии.

Ценность и смысл этоса польского учителя сбываются и будут сбываться в практической сфере, в жизни школы, ее учителей и учеников.

W. Benedyktowicz

El deber del profesor

El oficio del profesor es, de manera especial, una vocación, profesión de fe en valores determinados e identificación de uno con ellos, opción moral y fuerte deseo de servir tanto al individuo como a la sociedad.

En Polonia, dada la crisis económica y social, se percibe también la crisis en la institución de la escuela y en la enseñanza. En algún aspecto, la crisis es un fenómeno duradero que siempre acompaña a la escuela, que por lo tanto exige transformaciones concretas y reformas sabias. La escuela nacional en Polonia demostró su importancia en el período del declive del estado y en la época del dominio extranjero. En la historia de la enseñanza polaca destacan muchos científicos y maestros de mérito, personas dispuestas al sacrificio de caracteres a menudo heróicos. Hubo pues una época en la cual los agresores o germanizaban la escuela (Prusia, Austria) o la rusificaban (Rusia). En estas condiciones fue fundada en Varsovia, a finales del siglo XIX, la así llamada „Universidad Voladora", clandestina escuela polaca que aunque no otorgara diplomas, dotaba a sus discípulos de conocimiento amplio y los preparaba a la vida en las distintas esferas de la actividad social. La sociedad encomendó para esta labor didáctica a los mejores científicos, y hay que señalar que los representantes más eminentes de la vida polaca cursaron sus estudios en esta extraña escuela. Las experiencias de este período sirvieron de base a la enseñanza clandestina organizada en los años 1939 - 1945, cuando el agresor nazi cerró gimnasios y universidades, tolerando tan sólo escuelas elementales y profesionales, de programas muy reducidos. Los profesores polacos, tomando el ejemplo del etos del trabajo y las actitudes profesionales del pasado glorioso, entienden y profesan los siguientes principios de su deber profesoral: el desinterés, el papel servil del profesor ante la enseñanza, los valores morales y sobre todo la verdad; fidelidad a los deberes y su cumplimiento; la responsabilidad, la igualdad; los profesores polacos están conscientes de la necesidad del perfeccionamento profesional contínuo para responder al reto de la época en la que viven y para preparar a los estudiantes de la manera más eficaz posible a la vida en el siglo próximo.

El valor y el sentido del concepto del profesor polaco están sometidos a prueba y serán verificados en la esfera práctica, en la vida de la escuela, sus profesores y sus alumnos.

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Some Factors of the Quality of Education

by

ZOFIA KIETLIŃSKA

Many factors of different kind, and we will choose only some, affect the qualitative and quantitative effectiveness of education in all types of schools and levels of the educational system. Worded in most general terms, the basic factors are unambiguous for the whole educational system although filled with diversified content. They are:

1. Educational objectives correctly established.
2. Selection of educational content suited to the objectives.
3. Proper methods of meeting educational objectives and content.
4. Theoretical teaching qualifications of the instructional staff.
5. Qualifications of the learners.
6. Material resources of education.

All the above-mentioned factors are the main determinants of the proper shaping of the whole educational system and they are of specific importance for the operation and socially desired effectiveness of higher education. This specific character results from the fact that, although the lower levels of the educational system have the established theory of education of long standing — general scientific foundations of pedagogy and didactics as well as detailed methodologies — the relatively recent theory of higher education is still in the nascent state.

What merits particular attention is the fact that, practically speaking, the higher education goal formation theory has not been developed yet as well as the closely concomitant theory of forming the so-called "profiles" or "silhouettes" of graduates. This has been confirmed by unusually laconic wordings contained in the documents of the Ministry of Science and Higher Education which state "precisely" in very vague terms not so much the "goal" to be reached in a given higher education speciality, but superficially and rather platitudinously worded scope of work of the graduates-to-be [1]. And yet, an adequate and precise enough definition of the "educational objective" conceived as a "socioprofessional profile" is a starting point to develop a general theory of education selection and the follow-up plans and programs.

The dragging work on the so-called „reform" or, to draw it mild, "improvement" of curricula, an otherwise positive undertaking to meet the advance in knowledge and social development, is a real "going through the motions" and a "haggling for teaching periods". This undoubtedly has its roots in the shortcomings of the precisely enough worded theory of educational content selection and sheer ignorance in this field of the members of the curriculum producing teams.

It is not my intention to elaborate on the problem of the goal formation and educational content selection theories which still require thorough studies, research and analyses of a general and specific kind. It is only worthwhile to focus attention on some interesting studies in this field (i.e. educational content selection and graduate profile development) carried out (and quite advanced) at the Adam Mickiewicz University in Poznań in co-operation with the interuniversity Institute of Scientific Policy, Ministry of Science and Higher Education. It is really advisable for all those updating the curricula, regardless of the university or line of specialization, to familiarize themselves with the findings of the studies, both published [2] and ready for publication.

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[1] Silhouettes usually boil down to the formulation of eg. a type of a transportation engineer profile as a graduate prepared to design, construct and maintain road for vehicles.

[2] Among other things: 1) *Treści kształcenia w szkole wyższej*

Equally important for educational effectiveness as the above-mentioned theories of proper goal formation and profile, plan and curriculum development are the problems of their implementation. Here the methods of educational objective and content accomplishment are of utmost importance. What also merits attention is the fact that the pedagogical theory on the highest level of national education, i.e. institutions of higher learning of all kinds, has been gaining momentum.

The didactics of institutions of higher education — a fledg'ing in the 1960s — has significantly developed in the last 25 years both in the general theory and specific theory of some specialities, that is the didactics of medical, military and technological studies. Theoretical problems of teaching techniques and the use of modern equipment with all its software have also been developing.

There has been a growing understanding of university teachers' qualifications — another important factor of effective education — initiated in the form of teacher-training courses at many universities in the early 1960s. They have been catching on especially in the institutions of higher learning of a vocational type eg. technological universities or colleges of agriculture (among others as postgraduate studies) and now they have valuable textbook resources in a multivolume University Teacher's Library published by the Institute of Scientific Policy, Ministry of Science and Higher Education and in a regular supplement designed for pedagogical self-instruction in the scientific quarterly Dydaktyka Szkoły Wyższej.

Nevertheless, the understanding of the role, needs and rank of university teachers' pedagogical qualifications which goes back to the early 1960s does not exhaust the problem of their professional background necessary to work in an institution of higher education. Its basic component is the knowledge of a given scientific discipline and its constant

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(Educational content in an institution of higher learning), collective work, J. Bogusz, T. Lewowicki and J. Zakrzewski eds. IPNPTiSzW and WAP. Warszawa 1983. 2) *Tendencje zmian programowych w szkołach wyższych (Program changes trends in institutions of higher education)*, collective work, ibid. IPNPTiSzW and WOSL. Dęblin. Warsaw 1984.

improvement. On the one hand, their skills are measured by scientific degrees earned and, quite independently, acquired practical experience in the use of specialized knowledge.

The said practical experience is of particular importance in such areas of study as, for example, technological studies. They require university teachers to maintain constant touch with the profession, production and industry. Hence, participation in professional practice through periodical employment in some leading industrial enterprises or constant involvement in designing, construction or technological work performed at the university under the guidance of professors and to orders coming from the national economy. The latter, carried out at many technological universities, provides university teachers with a direct contact with real production and the leading professional personnel and helps to earn practical skills of high quality especially by fellows and senior lecturers.

These two categories of university teachers — fellows and senior lecturers (especially senior lecturers) usually have good knowledge and experience to conduct all kinds of classes at the university within their speciality including the supervision over master's theses. The latter, at technological universities, requires, first of all, a direct contact of the supervisor with running production and his holding any scientific degrees is of minor importance here. In technological studies the thesis is "the crowning of the studies" and it gives the graduate a diploma for practical performance of the highly qualified work of an engineer (designer, technologist etc.).

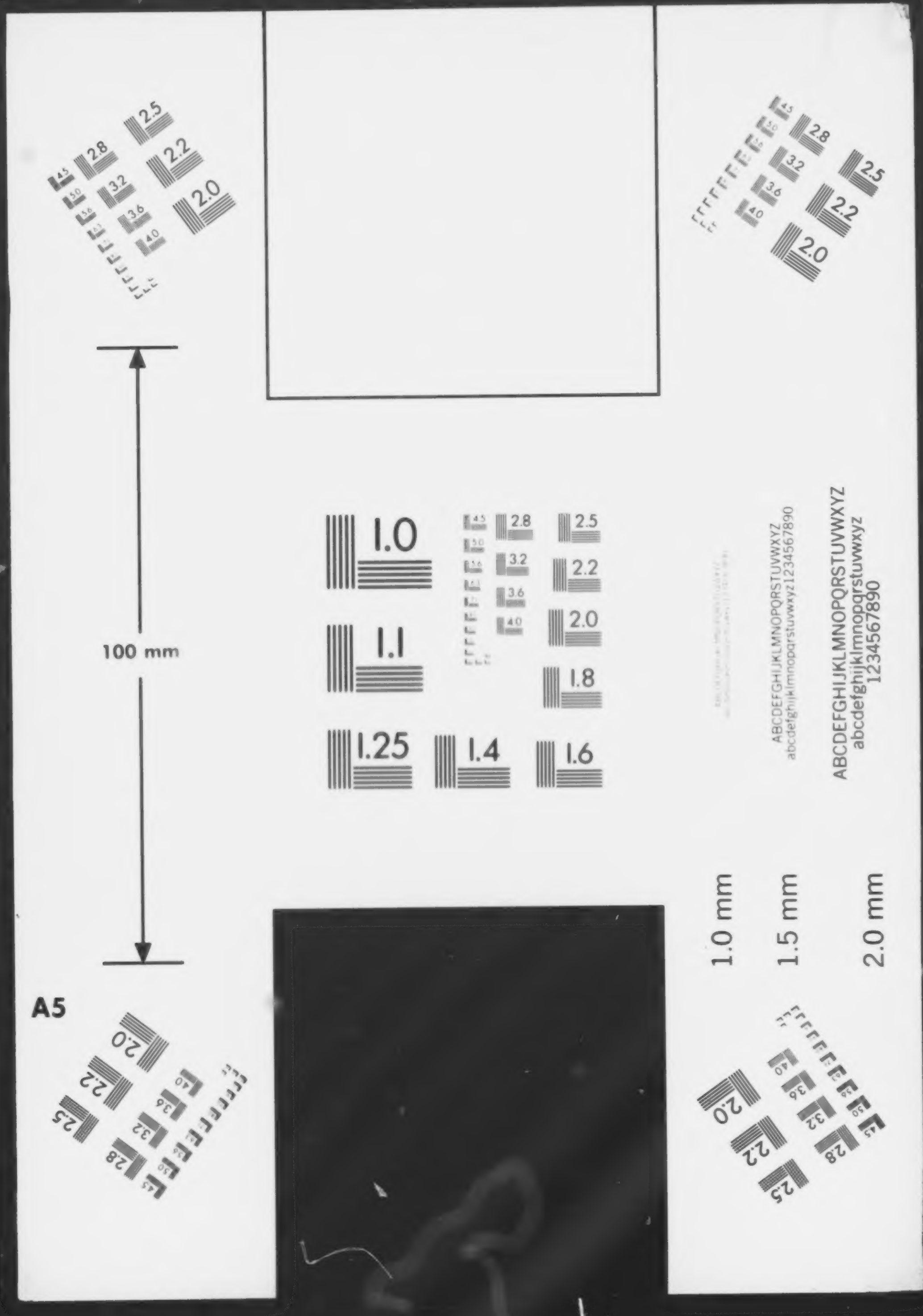
In view of what was said before, the practical professional qualifications of a thesis supervisor in technological studies is, proportionally, of much greater importance than "armchair" scientific qualifications. For this reason, and also due to the joint responsibility of graduate recipients (i.e. industry) for the graduates' professional qualifications, it is advisable to attract outstanding practitioners to co-operate with the university to supervise work for the master's degree and to review the theses. Following the general conclusion of a discussion on the responsibility for the training of engineers entitled, "Who is responsible for the effectiveness and quality of personnel trained by universities?", taking advantage of industry in this way is correct. The conclusion shared by university and national economy representatives was that the responsibility, in due proportion, rests with the "producers" and the "recipients" of the graduates. That is why the participation of outstanding practitioners in supervising master's degree work has been an unquestionable success of the last few years. This is not the only area of co-operation and, hence, a certain range of the joint responsibility in education on the part of the national economy and institutions of higher learning. It should be and partly has been in use especially in technological, agricultural and other professional training. Suffice it to say that the vast problem of practices, which are an integral part of educational programs, cannot be solved solely by any university. And there is also a big problem of making material resources of enterprises accessible to the laboratory needs of universities, which do not have and will never have such a modern and often unique equipment in various fields of technology as the national economy. This does not only boil down to making the equipment or premises accessible. It also means the availability of specialists from enterprises to render educational services either in the form of conducting laboratory classes or selected lectures on a part-time or full-time basis. Obviously to make the enterprises feck the need for the co-operation with the university and grasp their joint responsibility in this area, they must be treated as universities' equal partners.

Another important factor of effective operation of institutions of higher education is the right system of enrollment. The prevailing system is actually based on one criterion of appraisal, namely the entrance examination. Any so-called "preferences" apply to the group of the already selected candidates. Research findings show that the present system is not the best possible since it does not provide the best selection (the sieve does not retain diamonds) and equal opportunities for all. So one would expect and wish our universities to carry out penetrating research to improve the existing system. The current research and discussion tend to stipulate the expansion of the qualifying criteria and the creation of a system of a "multiple-factor evaluation". What is essential is the statement that the system will embrace the whole population of candidates and not the one selected by the examination. Also an important thing is to substantially increase the contribution of a candidate's secondary school achievement record to his evaluation since it is an indirect measure of his values such as for example diligence, interest, motivation to study etc. Moreover, it is important to measure the equality of opportunities with most reliable indicators such as, for example parents' standard of education, permanent residence, where the candidate graduated from secondary school etc.

Unfortunately, the latest regulations concerning innovations in the enrollment system did not bring any real changes. So one is left to expect that further efforts in this field and published research findings on the prognostication of various parameters dealing with university students' educational progress will bring about an essential revision of the enrollment system.

Parenthetically speaking, the new system will certainly require further improvements from the outside and inside. Real attention should be focused on the factors outside the system of evaluation and selection. Two problems come to the fore here: motivation to study in an institution of higher education and the increase in the number of secondary schools and secondary school students within the system of compulsory secondary education since the real social selection takes place not at the university level but between the elementary school and a definite secondary one. Later on, efforts to socially equalize the very selection fail to correct the situation.

As for the motivation, young people have to see that it pays off to study at a university. It is definitely an important factor affecting their educational aspirations. One thing is certain that it will be necessary to start nationwide research on the operation and effects of the new enrollment system the moment it is instituted. Preparations for this research should begin now in all institutions of higher learning and primarily in university methodological and pedagogical centers headed by the Institute of Scientific Policy.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З. КЕТЛИНСКА

Некоторые обусловленности качества обучения

Статья посвящена разным факторам, которые в реализации дидактических процессов в вузе влияют на качественную эффективность обучения. Автор перечисляет самые важные и значительные факторы, а именно:

1. Правильное определение целей обучения;
2. Подбор содержания обучения, соответствующий целям;
3. Надлежащие методы реализации целей и содержания обучения;
4. Педагогические квалификации кадров преподавателей;
5. Система подбора абитуриентов, от которой зависит „качество" обучаемых;
6. Материальная база в ходе учёбы.

Особое внимание обращено в статье на проблему партнерства в реализации задач обучения. Партнером являются учреждения народного хозяйства, особенно для „профессионального" обучения, как напр. технического, сельскохозяйственного и др. На этом фоне автор акцентирует особую роль общей ответственности обоих партнеров (вуз и промышленное предприятие) за результаты обучения. Кроме того автор обращает особенное внимание на проблему педагогического совершенствования преподавателя и способы его обеспечения в Польше. В статье обсуждается также значение соответствующей „системы подбора абитуриентов" в аспекте её достоинств, прогнозировки и успехов в учёбе.

Z. Kietlińska

„Algunas condiciones de la calidad de la enseñanza"

El artículo concierne varios factores que, en la realización de los procesos didácticos en las escuelas superiores, contribuyen a la efectividad cualitativa de la enseñanza.

Enumeremos estos factores que son de gran peso y envergadura: 1) determinación correcta de los objetivos de la enseñanza, 2) Selección del contenido de materias, apropiadas para los objetivos a realizar, 3) métodos adecuados de realización de los objetivos y del contenido de la enseñanza, 4) buena preparación pedagógica del personal docente, 5) sistema de seleccionar los candidatos que cursarán los estudios superiores, de lo que depende la "calidad" de los estudiantes, 6) base material de los estudios, o sea a cooperación de instituciones vinculadas con la economía nacional en la realización de las tareas de la enseñanza, factor de suma importancia para los estudios de tipo profesional, como por ejemplo los de perfil técnico, agrícola, etc. Así pues se va acentuando el papel extraordinario de mutua responsabilidad de ambos colaboradores (la escuela superior y la industria) en cuanto a los resultados de la enseñanza. La autora del artículo dedica un interés especial al problema del perfeccionamiento pedagógico de los profesores académicos y las maneras de garantizar dicho proceso en Polonia. Además, presenta la importancia del „adecuado" sistema de selección de los candidatos, en el aspecto de su valor y los pronósticos concernientes a sus éxitos en el estudio.

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Życie Szkoły Wyższej 1986

The Contemporary Technological University

by

JANUSZ TYMOWSKI

1. Social Expectations Concerning Higher Education. Society expects from higher education:

a) to provide the influx of graduates, quantitatively and qualitatively, that would meet the needs of the economy. The graduates should be well prepared to exercise their professional and civic functions and ambitious enough to constantly improve their work and the organization they work for;

b) to push forward the frontiers of science and technology through scientific research and education of young scientific workers. In the COMECON countries this range of tasks is reduced as there is a wide network of research institutes of the academies of sciences. Hence, research at the universities is primarily geared to provide opportunities for the creative activity of university teachers and to help the students to get in touch with problems of the frontiers of science and, possibly, to develop interest in scientific work;

c) to co-operate in the development of the region through:

(1) research ordered by state institutions and economic organizations. The subject matter of this research should allow university scientific workers and students to organize in an innovative way and, if possible, culminate in doctoral theses;

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(2) services rendered such as counselling, surveys, checking tests, supervision over special work etc. without getting the university involved in routine tasks;

(3) the improvement of qualifications of the region's workers by organizing extramural studies, scientific conferences, specialization courses, postgraduate studies, helping workers to participate in selected classes etc.;

(4) raising the standard of culture in the region through broadly conceived educational functions and a wide range of education for adults.

2. *Interrelations*. The mass availability of full secondary education and the concomitant substantial expansion of the university enrollment base have resulted in the student population becoming more and more diversified in their intellectual capabilities and goals they pursue. At the same time, there has been an increase and diversification of needs of developed society and the requirements of the modern economy.

Satisfaction of these needs is possible only through the diversification of university studies according to the goals, levels, content, length of time and methods of education.

The growing rate of scientific and technological advance makes specialized knowledge obsolete in no time and causes new functions, jobs and whole spheres of activity to mushroom.

As the capacity of students' minds is finite, one cannot overload their memory and reduce their reasoning capacities, and as the studies making students fit for their professional careers cannot be extended any further, it is necessary to shift to the system of permanent education.

The outcome of this should be closer ties between enterprises and institutions of higher education, a necessity for economic organizations to take over some educational tasks. Only very close ties between the university and enterprises can make such solutions feasible which would facilitate adjustment to the newly emerging professional functions without an infinite escalation of educational costs.

It should go hand in hand with a reasonable, stable state educational policy. The characteristic feature of our postwar higher education was its weak resistance to outside pressure and changes growing out of immediate needs. The result has been a large changeability of structures, plans and curricula, with occasional turnabouts and reversion to ideas formerly used and then discarded.

A typical example is the diversification of higher education. The need for the diversification, a departure from a uniform university structure has been recognized in all highly developed countries. It is met either by introducing various degrees or diplomas (in English-speaking countries, West Germany, Hungary), or through a proper orientation of individual schools toward some specialties (France). In Poland before the war, diversification was implemented only in technical studies; beside technological universities there were also machine construction and electronic colleges of repute (eg. The Wawelberg School of Engineering) which offered higher professional education.

The system was in use till 1948 - 1949, when to accelerate the influx of workers with higher education, then badly in need, two-stage studies and extramural studies were installed in the whole higher education system except medicine. To create an opportunity for shortening the length of studies, narrowly confined specializations were established. The first-stage studies lasted 3.5 years then 4 years (including a six-month industrial practice) and granted the engineer's diploma. Only 10 to 15 percent of the best graduates of the first stage could enter the two--year second stage and strive to obtain the degree of Master of Engineering.

After meeting the most urgent needs, the two-stage studies were abolished and in 1954 uniform five-year studies leading to a master's degree with reduced specialization were introduced. This posed some hardship for extramural students since they had to study much longer. Hence, following the resolution of the Congress of the Polish United Workers' Party in 1965, the Polish Diet passed a law which changed the former higher education law and established two types (not stages) of technological institutions of higher education: technological universities to train engineers-theoreticians and higher vocational schools (WSI) to prepare engineers-practitioners.

The higher vocational schools did not enjoy public appreciation and did not satisfy regional ambitions. They did not try to produce their own graduate image, imitated master's degree curricula and considered their state transitory.

The Ministry of Science and Higher Education could not resist the pressure and in 1973 stripped intramural studies of professional studies, leaving them only with extramural ones. At the same time, all higher vocational schools (WSI) were authorized to conduct master's degree level courses without a deeper examination of their potentialities.

Each school tends to pursue as wide a range of courses and specialties as possible. The outcome is that with theoretically standardized curricula (which are approved by the Ministry of Science and Higher Education), the country is unable to properly equip laboratories in all schools and provide fully qualified teachers. Hence, the standard of graduates differs widely from one technological institution of higher learning to another.

3. Proposals for Poland

3.1 Diversification of Training. I am strongly in favor of training two types of engineers: engineers-theoreticians and engineers-practitioners. The situation seems much the same with the majority of the areas of specialization.

The engineers-theoreticians' task is to push forward the frontiers of technology and technological sciences, to expose unused potential in the use of equipment or technological systems and to develop better new equipment, processes and systems, following the latest scientific achievements or ideas from other fields of technology. Such endeavors require a thorough knowledge of science, especially mathematics, all-embracing attitudes, abilities to build mathematical models and to optimize solutions. Their main field of work is applied research and development usually leading to the production of a model that confirms the correctness of the solution.

The task of the second group, that of engineers-practitioners, is to put into practice new technology, to use the acquired knowledge creatively in complex situations, to construct, implement and use new technological devices and systems. These people have to be specifically sensitive to economic aspects and team-work problems.

The basic area of their professional activity is development work combined with implementation work.

No distinctions should be made between graduates of both types of training when filling managerial posts since what really counts here is personality. Nevertheless, in each case a managerial post is to be assumed, a proper supplementary course has to be administered.

Likewise, engineers-practitioners who develop interest in research should be given opportunities to pursue scientific degrees with, if necessary, an obligation to pass additional examinations set by the department which grants the degree.

Organizationally, three variants are possible:

a) Each type of training offers a different diploma: Master of Engineering or a licensed engineer for the engineer-theoretician and an engineer's diploma or a professional engineer diploma for the engineer-practitioner. Individual schools can offer studies of one or two types.

b) For both types of training only one kind of diploma is available: Master of Engineering. Each school may provide only one type of training — the name of the school identifies the kind of preparation offered.

c) One name of the diploma is retained: Master of Engineering. Individual institutions of higher education can offer one or two programs. In this case, it would be necessary to include an indicator in the diploma of the type of training.

According to our and world experience, except Great Britain, keeping the two types of training in one institution of higher learning proves disadvantageous since, unavoidably, it gives rise to a view in the institution that one of these types is inferior to the other and, as a result, it becomes discriminated against in various ways. Hence, the right solution seems to be the linking of individual schools with one type of training. As great store is set by titles in this country and egalitarian trends prevail in this respect, one might expect that opposition against the introduction of the two types of engineers would be much smaller if the name of the diplomas was the same.

One has to emphasize, however, that the types are to be equal in status though different.

3.2 Schools. In Poland there are 18 technological institutions of higher learning with five branch institutions and two colleges of agriculture. By restoring the two kinds of training for intramural studies, it would be necessary to locate them in seven to eight schools. None of the remaining schools should be eliminated, but only shifted over to produce practitioners. Each school should strive to form its own image by giving differentiated preference to research and education.

The shaping of their own image and infusion of the spirit of competition between schools is conditional upon their increased independence in developing the subject matter of individual areas of specialization, greater freedom in the financial policy within the school budget and greater flexibility in personnel policy.

The competition between schools for scientific reputation, quality of research and standard of the graduates should be given strong backing.

The differences between schools training practitioners and theoreticians would consist mainly in:

a) as for the programs — narrower specialization and stronger emphasis to apply the acquired knowledge, engineering practice, fitting theoretical subjects in with the needs of professional ones. The scope of theoretical disciplines should help the graduates to absorb on their own new scientific and technological achievements of their line of specialization;

b) as for the selection of teachers – paying particular attention to professional achievements and teaching abilities; giving preference to engineers with the second--degree professional specialization; wide co-operation with professionally active people, especially to have them conduct classes and supervise designing work;

c) orienting research work basically toward development and implementation and helping regional enterprises to solve their problems; this is closely linked with furnishing school laboratories with necessary equipment;

d) restricting the scope of specialties and subspecialties and fitting them in with the needs of the region;

e) the fact that the schools training practitioners should not be too big: there should be no more than 2 to 3 thousand intramural students (depending on the number of specialties); the schools should maintain close ties with the economy to match the schools' specialties and their size with the expected demand.

The structure of the two types of schools should provide for the institute as a basic organizational cell. The institute, similar to British departments, groups related disciplines of a given area of specialization and makes decisions concerning the curricula within the general framework accepted by the school senate. Under the present system of departments (or faculties), the university is rather a federation of units each preoccupied with its own life and usually cherishing autarkic leanings, each trying to wring out of the school as many teaching periods as possible.

The institute structure, where specialized institutes serve all the remaining ones, enforces co-operation and mutual relations and is conducive to the unity and coherence of the whole school.

Multifarious tasks that the contemporary engineer faces require schools granting master's degrees to have physicomathematical and socioeconomic institutes enjoying full rights. Such a structure would make it possible for schools to take up complex problems.

3.3 Plans and Curricula. The prevailing trend all over the world is to shift the weight of engineer training closer to his beginning the professional career, to put strong emphasis on general education with substantial reduction of differences between subspecialties, to build up the so-called core subject matters equal for all engineers and to shift the choice of not only specialty, but even the subspecialty, to the more advanced semesters. This has been most manifest in France, where two out of five years of studies are the same for mechanical, electrical and even chemical engineers. So far in this country the prevailing trend has been to start specialization as early as possible and, for instance in mechanical engineering departments they have departed from the rule that differences in specialty programs do not show until the sixth semester and the diversification of courses begins as early as in the second year. While accepting the principle that the final specialty should be acquired after beginning one's professional career, it is suggested to make the first year as standardized as possible for all subspecialties but decisively identical for both types of training within a given subspecialty. This has mainly been intended to help students to correct their decisions and to transfer between institutes or universities. Of real importance are transfers between theoretical and practical studies. The network of schools training practitioners will be much finer than that of schools offering master's degree courses, so it will be quite natural that young people will enter institutions of higher learning closer to their homes. Hence, it is necessary to help those who happened to enroll in practice-oriented schools and who have proved gifted and interested in more theoretical studies to transfer to the theory-oriented schools after the first year.

Graduates of both types of studies must be prepared for life and work under constant and rapid changes must be able to not only adjust to them quickly, but also to actively influence the changing trends.

During training, main emphasis should be placed on the development of abilities and personality, abilities and habits of absorbing new information and its skillful application, mastering foreign languages and at the same time less attention should be paid to the transmission of information. So the main stress should be put on students' own work with smaller number of classes.

Higher education ought to develop wide horizons, the ability to work in a team, to inspire and direct others, the sense of social responsibility, the need to seek for perfection and the pride in the practiced profession — that of an engineer. The length of study for both types of training may be the same, but practice-oriented studies should include two full semesters of employment in the national economy, beside summer practices, one after the first year as the third semester and the second as the eigth or ninth semester depending on the subspecialty.

It is desirable to give a mid-term examination after completion of two years of study to find out if a student promises to graduate from a given type of school.

Beginning with the fifth semester, students would choose a definite narrower specialty and within this specialty they should have a possibility to select subjects from the listed groups in accordance with their individual interest.

It is also advisable that each student should sign a precontract with an enterprise a year before graduation at the latest, that is after completing his eighth semester; this would make it possible to select proper subjects for the ninth semester and the subject of his thesis and would greatly facilitate his professional adjustment. The trouble is with the military service, which takes one year upon graduation and requires to get ahead of the enterprise's demand for engineers.

It is recommended for practice-oriented students to take up alternation of studies on a large scale, if possible, where periods of learning would intermingle with periods of work and a typical solution here would be a co-operation of a school or even an institute (department) with many enterprises.

Institutions of higher education should not be burdened with responsibilities resulting from the nonstandardized and partly incorrect preparation of candidates. All enrollment preference points (credits) should be abolished and entrance examination requirements should be strongly executed. However, candidates ought to be given an opportunity to find out if they can meet university standards and make up their deficiencies in their secondary school training. Two-week orientation courses before entrance examinations are not enough. The best solution seems to be TV preparatory courses containing 200 half-hour programs and to work out problems in youth periodicals. Candidates should consult the teachers of the school they intend to enter. Such a course would be a check of one's perseverance, stamina and a real desire to study.

The entrance examination ought to be supplemented with a conversation of the candidate with the examination board composed of two experienced professors to learn about the candidate's motivation. Why has he/she decided to enroll? Why has he/she chosen this line of specialization? What does he/she know about the profession he/she is to pursue? Motivation is the most essential element of success in learning.

3.4 University Teachers. The law on institutions of higher education now in effect was based on university traditions and the system of scientific disciplines and does not include specific conditions prevailing in technological universities which must train while solving usually multidisciplinary problems. Hence, a requirement to earn a habilitation degree to become an assistant professor or a full professor (or an associate professor for that matter) practically makes it impossible to properly prepare graduates-to-be for their tasks. Thus, like in West Germany, to confer assistant professorship or the more so — full professorship, it would be necessary to provide an alternative of either earning a habilitation degree, and this would basically apply to fundamental science-oriented chairs, or having a longer, at least a five-year professional work experience and real achievements in that work as well as implemented and accepted designs.

The one-job-only rule introduced in the early 1960s was a grave mistake as it alienated institutions of higher education from real life. Full support should be given to university teachers' co-operation with enterprises either in the form of research done to order of the enterprises or a part-time job with them. To do some research for an enterprise, university workers concerned should be given a leave of absence and delegated to the enterprise concerned to work there as regular employees.

It is necessary to carry out systematic assessment of each university teacher's activity by taking into consideration his or her work in science or for industry and his or her teaching performance. Here it is recommendable to take into account students' opinions obtained through anonymous questionaires filled out after the lapse of each academic year; it proved highly effective at American universities. With all troubles it offers, it is desirable to develop a system by which the habilitation degree should be earned at a university outside the one where the teacher is employed. Likewise, the first post of an assistant professor ought to be assumed at another university or at least an institute (department).

It would be useful to set up social councils at each university which would be made up of a representative of local enterprises, outstanding professors from other scientific institutions and members of local authorities.

3.5 Development Measures. Institutions of higher education should participate in the development of workers employed in the national economy by conducting studies and postgraduate courses and inviting regular employees to participate in selected classes.

Postgraduate education (the term covers all forms of qualification improvement after receiving a professional diploma) should be incorporated into a system which would embrace:

a) adjustment studies immediately after graduation. Research findings have proved that in technological fields more or less 30 percent of graduates take jobs according to their learned specialty, that is in accord with the subject matter of their theses. Thus a young engineer, whether he can adjust to his new environment or not, must become familiar with the products of his enterprise, materials used, modes of production, standards etc.

Because of great diversification of adjustment studies and scattering of graduates entering employment in time and space, the best solution would be guided self-education organized by a university with a given specialty. The guided self-education would consist in the appointment of a guidance counselor from among professors and assistant professors, development of an individual program of material that the young engineer will have to absorb on his own with the aid of a textbook and in consultation with the university scientific workers, and carrying out required laboratory work with the preparation of designs and getting credits for them. The studies would have to be synchronized with the work performed in the enterprise. Individual items listed in the program would have to be credited in a regular way. The adjustment studies would be completed with a thesis on a subject agreed upon with the employer; it would be jointly evaluated and presumably accepted by the counseler and a representative of the enterprise. The approximate length of the adjustment studies would be two semesters and would be compulsory for all newly employed engineers whose work in the enterprise would not strictly go along the line trained at school. It would apply to 70 percent of a given year graduates;

b) specialized studies for outstanding young workers after 3 to 5 years of employment, which would prepare for a managerial position or deepen their knowledge in a given narrower area of technology. One could estimate that studies of that kind would cover about 30 percent of fellow-graduates.

The most suitable form of managerial studies would be extramural studies conducted by schools with management and organization specialties with the inclusion of outstanding specialists-practitioners as instructors. The studies would last 3 to 4 semesters.

Specialized studies in narrower fields of technology would have to be organized together with industrial institutes and should have practices included in leading enterprises or abroad.

University teacher training is a separate topic. It would be advisable to make it compulsory, as in the Soviet Union, and to allocate it to two or three universities.

Я. ТЫМОВСКИ

Современная техническая высшая школа

В своей статье автор пишет о концепции обучения инженеров в системе высшего образования. В начале статьи автор говорит о надеждах общества на высшее образование и характеризует обусловленности потребностей в сфере образования. Что касается обучения инженеров, автор высказывается за дифференцирование концепции обучения, которая имеет ввиду два типа инженеров: инженера-создателя концепции и инженера-реализатора. Вуз должен стремиться к формированию своего собственного профиля, дифференцируя преференции в области научных исследований и обучения как такового. Условием этого должна быть большая самостоятельность вузов и поисках сущностии отдельных форм учёбы, большая свобода в распоряжении финансами в рамках вузовского бюджета и большая эластичность в кадровой политике.

Учебные планы и программы должны делать упор на развитие способностей и индивидуальных черт, на приобретение умения и навыка в овладевании новыми знаниями и на умелое их применение. Далее автор предлагает внести изменения в кадровую политику вуза и акцентирует необходимость осуществления функции вуза в совершенствовании квалификаций своих сотрудников, активно действующих в сфере народного хозяйства.

J. TYMOWSKI

La escuela superior técnica contemporánea

El autor del artículo presenta el concepto de la enseńanza o preparación del ingeniero en el marco del sistema de educación superior. Al principio habla de las esperanzas que la sociedad vincula con la enseńanza superior y caracteriza las condiciones de la demanda. En el campo de la instrucción o preparación de los ingenieros, el autor opta por el modelo amplio y diversificado de los estudios que prepararán dos tipos de ingeniero: a) ingeniero conceptual y b) ingeniero realizador. La escuela superior debería tratar de definir y formar su propio perfil individual mediante la diversificación de preferencias en el campo de investigaciones y enseńanza. Para lograr este objetivo debe ser cumplida la condición de una mayor autonomía de las escuelas superiores en cuanto a la elección de las materias a enseńar en los respectivos tipos de carreras, una mayor libertad para disponer de las finanzas en el marco del presupuesto de la escuela y una mayor elasticidad en la política personal.

Los planes y programas de estudios deberían hacer hincapié en el desarrollo de las habilidades y rasgos personales del estudiante, en la creación de la capacidad y la costumbre de estudíar, de adquirir el estudiante conocimientos nuevos y saber aplicarlos en la práctica. En la última parte del artículo, el autor presenta las propuestas

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de cambio en la política docente de la escuela y subraya la necesidad de cumplir la escuela la función de perfeccionar a los empleados en la economía nacional.

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Open University in Poland — Assumptions and Prospects

by

JANUSZ GÓRSKI

Open universities have become a new trend in higher education which rapidly developed all over the world during the sixties and seventies. They are forms of college education open to large numbers of people — mainly adults who are already in employment and wish to extend their knowledge, acquire new qualifications and skills. The students' motivation is often altruistic — they do not expect the studies or even the diplomas to create them a chance of immediate promotion.

The reasons for the explosion of this new form of education have been diverse (in the early eighties, there were more than a hundred open university-type institutions in the world, some with over a hundred thousand listeners). Most important was probably the recognition of the significance of qualifications in the contemporary socio-economic situation, and also the observation that the traditional forms of education, i.e. intramural studies, are too expensive and not easily accessible to labourers' or peasants' children. This educational offer was intented to make higher education more attainable, democratic and egalitarian, it has also become a chance to find the talents in certain communities and among those who — for various reasons — did not take up regular institutionalized forms of education. Open universities were in most cases created by groups of people, usually professors, who held clearly forward-looking views on social issues.

Owing to the techniques of instruction applied by the open universities in the Third World countries (the problems of which are discussed below), there appeared a great chance of accelarating and broadening the educational process far beyond the small network of the existing institutions of higher education. The existing network could not develop due to the unavailability of funds. In most of these countries, open universities have become important means of raising the standards of teachers' and civil servants' performance.

Not inconspicuous in the creation of open universities was the critical attitude towards the existing forms of higher education. The institutionalized and standardized forms of studies have been replaced by flexibility and division into cycles and segments, parts of which could be credited. Such are the main principles underlying the open universities' operations in the developing countries. The experiences of open universities have many a time influenced the methods of instruction applied in the traditional centres of education.

A significant element in the functioning of open universities is the multimedial way of conveying knowledge. Radio and television have been widely applied so as to enable the students, irrespective of their permanent residence, to have at least a passive contact with the lecturer (usually an eminent specialist). The development of these media has contributed to the creation of the form of a brief presentation which — in the case of TV — is very attractively illustrated. Programmes featured within the framework of the open university have become a significant element of educational broadcasts, which occupy more and more space in the mass media (special TV channels in some countries).

The next instruction technique is based on manuals prepared especially for students, which are often very well written, and nicely devised. Apart from the texts of lectures being brief and clear, they contain supplementary materials (often selected texts) and well prepared comprehension questions. Many of these are semi-programed textbooks. These manuals both apply and influence the methodology of writing academic textbooks.

The third element is the opportunity of having direct contact with the lecturer. Some universities organize lectures open to all (not only their students) in order to provide presentation of the key issues of their important research projects. Of greater importance is the fine network of consultation centres for group and individual consultations. These centres have been organized not only in colleges, but also in high schools and people's universities — the traditional institutions of adult education. The consultants are staffers of institutions of higher education, and sometimes experienced high-school teachers. The final examinations are usually organized in those centres of higher education which supervise the operations of open universities. Sometimes these institutions are separate, independent teaching centres which employ their own faculty members.

Open universities grant diplomas and certificates stating that particular courses of study have been successfully completed. In the West, qualifications are assessed differently from in the socialist countries. Except some (doctors, lawyers, teachers, some engineering professions), it is the employer who decides whether to recognize a diploma. The standing of open university diplomas shows substantial differences. It reflects the reputation the institution enjoys, which is a function of the worth of the school's syllabus and its realization, and — most of all — it depends on the assessment of the skills acquired previously by the graduates who combine work with studies and who — in most cases — had been employed before taking up this kind of education.

In Poland, the idea of the open university began to take shape in the second half of the seventies. It stemmed from the tradition of the Independent Polish University (Wolna Wszechnica Polska) — a forward-looking college of the inter-war period using unconventional techniques of instruction which made higher education available also to all those who were not high school graduates. It also drew on the experience gained by teaching with the aid of mass media, mainly the TV Polytechnic which was created in the sixties at the suggestion of Professor Janusz Tymowski. It had tens of thousands of listeners in the peak of its activity and it developed many interesting instruction techniques which apply television and variety of forms of direct consultation.

In Poland, the functions of the open university have been performed mainly by extramural studies. In the sixties and seventies, they became a form of mass education. They created an oportunity of completing higher education for a large group of working-class and rural youth and for a substantial number of people who, for various reasons, could not take up intramural studies. About 150 thousand students were engaged in extramural studies in their peak phase of development, while the number of the graduates has recently totalled 400 thousand.

Those studies were in many respects similar to open university studies which existed in many countries. They were courses designed for persons already in employment, and they did not detach people from their jobs. They enabled the graduates to obtain diplomas of standard value. But on the other hand, the studies duplicated (despite their creators' intentions) the model of intramural studies. They used traditional instruction techniques (a limited number of lectures and classes). They had no special manuals, nor did they make use of radio and TV. And unfortunately in many colleges they were treated as a lower form of studies in the appointment of the teaching staff.

In the late seventies there appeared tendencies to reduce the number of extramural departments. A dramatic reduction took place in the early eighties. The number of extramural students was cut by about 60 per cent. In most faculties enrolment is now "directed" by those institutions which have been granted certain ceilings by the central authorities. Thus no longer do the studies have a truly open character.

The changes in the eighties have led to many transformations in the hierarchy of values cherished by Polish society. The designation of the position of education on this scale is a rather a difficult task. There have certainly occurred some adverse phenomena — expressed by smaller interest in higher education among working-class and rural youth. But on the other hand, the last two years of college enrolment seem to indicate that the tendency was transitory and consequent upon the socio-economic crisis of the years 1980 - 1982. However, the fact remains that polarization processes in society have also affected the attitudes towards education and culture. A great part of society has developed more sophisticated aspirations and set a high value on participation in education and culture. But there is also a no less numerous group of people who do not feel such a need or for whom it is insignificant. The growing discrepancies in this field may become a serious obstacle to the creation of a society which values the socialist model of life.

There are also reasons more general than those mentioned above and connected with the specific post-crisis situation, which speak in favour of creating an open university in Poland. Firstly, the present-day people, particularly those living in the socialist system, feel a natural need to improve the standards of their knowledge and qualifications. In this system, self-accomplishment of the individual, according to the vision created by the utopian socialists and by Marx, is to be achieved not really (or rather not merely) by means of even better fulfillment of material needs, but rather through creating conditions for constant participation in culture and education. Open university might serve to promote this model of life and the relevant model of values.

Secondly, characteristic of the modern world (particularly in highly- and intermediately-developed countries) is general secondary education, a consequence of the current level of development of engineering and technology, of civilization and culture. This process is conducive to increasing life's subjectivity and to the emergence of the willingness to participate in social and political life. Of course it does not go on without discrepancies, which, however, represent too complicated a subject-area to be discussed in this essay.

But if secondary education is beginning to be universal, it is obvious that more people may be enroled in college courses, and aspirations concerning higher education will continue to grow. The trend to extend accessibility to higher education has been observed in developed societies since the early sixties. In some countries, over 20 per cent of the population are enroled in school courses (in Poland, in the mid-seventies, the number slightly exceeded 15 per cent).

Here we approach a complicated and controversial issue.

Higher vocational education should take account of the economy's need for personnel holding university degrees. It has been estimated that in a developed economy with highly advanced postindustrial processes (i.e. an economy with very well developed services) the number of persons having higher education and corresponding jobs should range from 10 to 12 per cent for each 100 citizens. And such, or even higher, is this proportion in developed countries. So this may be one of the reasons for growing unemployment among university graduates, which is characteristic of highly advanced capitalist countries.

It is difficult to say how to cope with this rising discrepancy. It seems that altruistic education may be helpful — education aimed at raising the level of knowledge and culture, education which facilitates understanding of the rules of the modern world, which ensures "life as it should be", which does not develop aspirations for direct promotion, though it often makes things easier.

The conception of open university which we wish to carry into effect in Poland has been, after long discussions, derived from these assumptions. The university's Foundation Committee which has operated since 1982 and was called upon at the suggestion of the Society for the Popularization of Culture and Science, includes many eminent Polish scientists, social and cultural activists who believe that the open university which is being created in Poland should not compete with the already existing system of higher education. It is therefore not expected to grant vocational diplomas that entitle one, in accordance with the Polish law, to pursue a profession. Consequently, it is not supposed to compete with the existing forms of extramural education (which, let us believe, will again develop in the nearest future).

It has been assumed that in the first phase of its activity, the new type of higher education will be covering the curriculum of general higher education which is still unknown in Poland. This course of study has been pursued in a large number of American colleges. It is planned that the first year of studies would be devoted to humanities (history largely supplemented by cultural issues), followed by a year of teaching the basics of technological sciences (including the problem of the environmental protection), and another year of social studies (economics, political science, sociology), with two more years devoted to the pursuit of specialization of one of the three forementioned lines of study.

It is likely that, as this form of education develops, new subjects might be added to the curriculum. It might also be interesting to include the problems of culture, pedagogy, philosophy and religions. The opportunities are numerous, but it seems proper to try making the full use of them only when the university has weathered the initial phase of its existence and the relevant needs and potentialities have become better known.

The open university students will be free to choose their own array of subjects. It is assumed they will be free to choose the courses at will according to their interests. The lectures are not supposed to be obligatory in any prescribed order. The university's rules provide for the possibility of enroling in any course of interest to the student at a given time and of receiving a credit which will be valid if the student wishes to resume his studies after some time. Earning an open university diploma will depend on geting a specific number of credits for various courses of studies. The grades might vary according to the number of points scored. It is also assumed that obtaining an open university diploma will be essential for those willing to take up extramural studies.

The courses are expected to apply multimedial teaching techniques. The lectures will be broadcast by radio and TV. Each student will receive a number of teaching materials for individual work (against payment) containing the texts of lectures, the basic supplementary literature, methodological tips and comprehension questions. Weekend sessions are also to be held in some city institutions, in the university and high school premises. The courses will consist of combined seminars and consultations. Due to the relatively small Polish experience in producing textbooks and radio-television lectures assigned for this type of education, greater importance will be attached, at least in the first phase of the university's operations to establishing rapport between the students and the teacher.

One of the underlying principles is to create conditions for participation for all those who wish to attend. The restriciting factors are: the requirement of having secondary education (a controversial expectation in the light of the experience of the already existing open universities) and the requirement of being in employment (including work on one's own farm). It is expected that housewives, retired people and pensioners will be allowed to study too. Open university studies will not make one eligible for extended vacation, and teaching materials will be provided against payment.

It is difficult to foresee how popular this form of education will become. Preliminary inquiries conducted in the Cracow region have shown that a few thousand persons are interested in taking up this type of studies. The popularity of this form of education is going to depend on its standards, attractiveness, the standing it might acquire having showed its usefulness for the nation.

It is assumed that the open university should operate on the basis of the already existing institutions of higher education. Particular schools, mainly universities and teachers colleges, will successfully acceed to this educational initiative. The Jagiellonian University and Warsaw University are willing to begin this experiment. It is somehow symbolic that the oldest Polish university has dedicated so much effort to the elaboration of this newest form of education. The activities pursued by the particular centres, the settlement of the forms of operations in terms of substance, mass media courses and manuals are to be co-ordinated by a special group of scientists and activists, and also representatives of such organizations as the Society for the Popularization of Culture and Science, the interested ministries and a special office supervised by the Minister for Science and Higher Education. This solution seems to be more sensible than creating an entirely independent co-ordination centre.

The University's Foundation Committee has elaborated the above mentioned conception of the open institution of higher education. Detailed curricula for the first three years of studies have been devised. They have been given favourable assessment by experts in teaching, working for the Minister for Science and Higher Education. At present, curricula for the fourth and the fifth years of studies are being drawn up. The requirements the teaching materials are supposed to fulfill have also been elaborated. In order to continue the pursuit of this task (which includes ordering lectures and manuals) a binding decision is needed to call this form of education into being. Unfortunately, the decision has been delayed for over 12 months.

The creation of an Open University in Poland is a serious educational initiative. It is believed to be of great importance for rousing and answering the nation's educational aspirations, for the formation of "to be and to have" attitudes, for the enrichment of knowledge and qualifications, which is going to be essential for the development of creative and productive attitudes — of basic importance for the advancement of economic and social transformations in our country. It may become a very significant educational experiment conducive to the creation of a new idea of higher education — education that might serve not only professional careers. Open university courses may also stimulate the modernization of the form and subject-matter of traditional courses, which are rather out of date in many cases. These hopes will be fulfilled if the personnel who understand the assumptions and goals of the experiment join the ranks of those who wish to carry it into effect. So it is a good thing that the Resolution of the XXIV Plenary Session of the Central Committee of the Polish United Workers' Party has emphasized the meaning of this form of education. It may help to find a way out of the deadlock in which this educational project has bogged down.

Я. ГУРСКИ

Открытый Университет в Польше — предпосылки и перспективы

В статье обсуждается проблема развития открытых университетов на свете, а также представлена концепция и существующая до сих пор деятельность в области организации такого типа вуза в Польше. Открытый уни-

верситет в Польше должен служить делу повышения уровня знаний и квалификаций широких масс польского общества. Предполагается, что современный человек, особенно живущий в социалистическом строе, чувствует необходимость повышения уровня знаний и квалификаций. Самореализация личности должна осуществляться не только посредством все лучшего удовлетворения материальных потребностей, но также благодаря созданию условий для постоянного участия в культуре и просвещении.

В условиях современного польского общества среднее образование становится все более и более всеобщим. Таким образом растёт тенденция к получению высшего образования. Существуют, однако, границы обучения в традиционных высших школах, главной целью которых есть подготовка к исполнению конкретной профессии. Польская концепция открытого университета предлагает таким образом отказаться от повторения существующей уже в Польше системы обучения без отрыва от производства, и сосредоточиться на высшем обучении, профиль которого должен стать в меру общим. Такого рода обучение облегчит слушателю понимание естественных и общественных закономерностей современного мира. Далее автор излагает разработанную уже программную концепцию открытого университета.

Очередной вопрос, который обсуждает автор статьи, это мультимудиальная концепция передачи знаний, которую надо применять к такой форме обучения. Передача знаний должна основываться на телевизионных и радиотрансляциях, на индивидуальном пакете дидактических материалов, которые каждый слушатель имеет в своем распоряжении, а также на субботних и воскресных встречах с теми, кто призван приблизить им сущность обучения и направить по надлежащему руслу.

В последней части статьи автор обсуждает вопрос развития организационных работ и представляет роль Министерства науки и высшего образования, польских университетов и других вузов в создании этой новой формы высшего образования в Польше.

J. Górski

La Universidad Abierta en Polonia, principios y perspectivas

El artículo presenta, una vez resumido el desarrollo de las universidades abiertas en el mundo, la idea y los ya efectuados trabajos concernientes a la organización de este tipo de centro de enseñanza en Polonia. La Universidad Abierta en Polonia debe contribuir al aumento del nivel de instrucción y preparación de las amplias masas de la sociedad polaca. Se supone que cada hombre contemporaneo, viviendo sobre todo en los países del campo socialista, siente la necesidad de aumentar el nivel de su conocimiento y su preparación laboral. La autorealización de la entidad debe efectuarse no sólo mediante la cada vez más amplia satisfacción de sus necesidades materiales, sino también por medio de la creación de condiciones para la participación permanente del hombre en la cultura y en la enseñanza.

En las condiciones de la sociedad polaca contemporanea la enseñanza media es cada vez más corriente y popular. Pór lo tanto aumenta el interés por la instrucción superior universitaria. Sin embargo, en los centros de enseñanza superior tradicionales, encaminados a la preparación del estudiante a desempeñar una profesión determinada, la enseñanza está de alguna manera limitada. Así pues, el concepto polaco de la universidad abierta excluye la repertición del ya existente en Polonia sistema de enseñanza para trabajadores, e implica la educación superior de perfil más bien general, que facilite al estudiante oyente la comprensión de los principios naturales y sociales del mundo contemporaneo. Luego el autor presenta el ya elaborado concepto del programa.

A continuación se habla del concepto multimundial de la instrucción, que debe ser aplicado en este tipo de enseñanza. La instrucción ha de basarse en programas de radio y televisión, materiales didácticos individuales de los que disponga cada cursante y en los encuentros efectuados los sábados y los domingos con los animadores,

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que explicarán y concretizarán las materias que abargue el curso.

La última parte del artículo relata el estado en que se hallan los trabajos de organización y presenta el papel del Ministerio de la Ciencia y Educación Superior y las universidades polacas en la creación de este nuevo modelo de los estudios superiores en Polonia.

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Preconditions of Educational Effectiveness in Higher Education

by

KAZIMIERZ JASKOT

Academic youth subject to the influences exerted by their universities are by legal standards both mature and independent. In fact the maturity is not complete, for there are numerous realms of their mental life that are formed precisely during the years when one receives higher education. It is then that we reach the limits of our intellectual capacities, and dilemmas involved in one's outlook on life become especially grave (they are questions on the sense of living, its quality, and one's place in life), beliefs are taking shape, sets of values become solid, so do aspirations and the principal aims to be pursued in the mature life that one sets himself. It is also in the university years that we learn proficiency in the roles we are supposed to perform in the variety of walks of the grown-up person's life (meaning civic, political, vocational, and family affairs). Thus the time of acquring academic knowledge sees the final stages in the development of those aspects of our psyche and mental lives that determine the quality of our existence.

The scale of the utilization of the opportunities involved in the moulding of young people's personalities and attitudes in the course of receiving higher education depends on a number of miscellaneous determinants. As far as the intentionality of the said influences is concerned there are two kinds of determinants that attract particular attention.

One type is that relating to the nature of character-forming processes taking place at institutions of higher education (pedagogical determinants). The other type is that responsible for management of the said processes viz. ensuring their efficiency, soundness, and comprehensiveness (praxiological determinants).

1. The pedagogical determinants — the desirable characteristics of educational processes. Among the character-forming processes taking place at institutions of higher education, those having educational character play a prominent role. This is the case especially when the processes form the designedly and methodically organized system of actions distributed over a definite period of time and showing clear sequencing. Such actions may help to affect the orientation and progress of the other character-forming processes (meaning non-educational and self-educational effects), which, in turn, enable accelerating transformations in students' personalities, a precondition of producing the desirable model of the graduate. For this to take effect, however, educational influences must be marked by the presence of a set of features needed for the emergence of psycho-social conditions conducive to the development of desirable inclination, attitudes and types of personalities among students. High activeness of students appears to be the principal constituent of the set. The rationale behind the idea of promotion of students' increased activeness in the different dimensions of their schools operations is, that personality of an individual is shaped through regular pursuit of specific types of activeness. The development of any new aspects in one's personality depends upon starting new kinds of activeness. "Man acts in one way and not another not because he has some particular properties as an organism and social entity, but since he has definite properties, chiefly because he is engaged in pursuit of specific kind of activeness"[1].

Therefore, educational undertakings should consist in creating sequences of situations intended to make the students show activeness that might be productive as far as the motivation behind engaging in it is concerned, and, at the same time useful in consideration of the aims the institution of higher education has set itself. The activeness should be effectuated through specific interactions, with the particular rules of social co-existence respected and observed. In this context collectivity appears to be the optimum principle to govern organization of students' lives and work.

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[1] Kamiński A.: *Funkcje pedagogiki spolecznej (The Functions of Social Pedagogy).* Warsaw 1972, p. 139.

Actually the principle should be followed in all units of an institution of higher learning designed to bring students together. For it provides the opportunity of generating psycho-social conditions conducive both to students' individual development and their getting prepared for their socio-vocational roles they could take on in the future. The worth of the conditions lies in the following: 1) collectivities are the main areas of interactions between students and academic teachers, in the course of which the parties involved affect each other (the socializing mechanisms being particularly active); 2) there arise opportunities for every student to aquire experience and motivation for co-operation, which is indispensable given the current increasing collectivization of activities in different walks of life; 3) collectivity has proven extremely useful in the process of students' acquiring experience in organizing people into bodies for the pursuit of tasks and management of these, the experience that is to be seen as an indispensable aspect of qualifications of a graduate from an institution of higher education.

Collectivity of students' life and work provides the conditions needed for the development of the young people's self-government. In the conditions of academic education it is seen as a form of organization of collective living based on the principle that students' collective bodies participate directly and increasingly in performing the functions of planning, co-ordination, maintenance of discipline, control and evaluation, all of these being indispensable pre-conditions of the effective pursuit of the adopted targets. In this context, self-government appears to be not only students' participation in decision-making effectuated at different levels of management of academic life, but also, and actually most importantly, the term implies their involvement in the enforcement and accountability for the decisions. This interpretation of self-govern-

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ment has two important aspects: it must pervade all kinds of character-forming processes effectuated at an institution of higher education; it has to be dealt with by means of educative measures; it needs promotion to affect more and more areas of students' life and activeness.

Increased activeness and growth of students' self-government as considered in the context of higher education institutions' international influences largely depends upon the nature of the relationships between university teachers and students, which depends both on attitudes and behaviour of either side involved. As far as the teachers are concerned, the nature and progress of interactions with students depend most of all on their educational attitudes, which in turn affect the probability of occurrence and scale of the following types of teachers' behaviour: 1) treating students as an alien anonymous group, versus seeking avenues to get to know them, understand their needs, abilities, and difficulties they are confronted with; 2) relying on formal approach to students and confining the range of possible ties to those found in the superior-subordinate relationship, versus seeking circumstances encouraging informal relationships and emergence of emotional ties; 3) disposition to bring oneself as well as one's discipline and its foci into prominence while pursuing projects with students, versus willingness to focus on students and development of their intellectual and emotional capacities in line with objectives of higher education.

The identification of the type and frequency of recurrence of the prevailing type of behaviour might legitimize the theories of stimulative values of teachers' attitudes (activating initiative, energy, self-reliance, encouraging outspokenness, friendliness and tolerance) or those pointing out to their resctrictive effects (relying on subordination and "obedient" activeness, initiative confined to "the certain limits" etc.). The stimulative attitudes foster emergence of personal ties between teachers and students. Individuals that engage in interpersonal relationships can see one another as valuable acquaintences for different reasons and seek maintenance of connections based on partnership. This kind of co-operation in teaching, learning, research work or vocational occupation provides opportunities to eradicate teacher-student relations limited in respect of time and substance, to be replaced by direct personal interactions that emerge from collaboration in the pursuit of ends.

The list of the features is not complete. The ones I have mentioned, however, indicate conditions in which character-forming processes could encourage the development of students and stimulation of their activeness for self-improvement. For it is to be underscored that given the available higher education conditions the intentional character-forming measures can only be found effective when they give rise to an individual's disposition to change and seek self-improvement.

2. *The determinants from praxiology.* The afore-mentioned features of character-forming processes may only be effectuated in particular organizational conditions. Praxiologists say that given a correct selection of objectives for given activities, the absence of the expected effects may be consequent upon drawbacks in organization of the activities. This theory fully applies to international character-forming influences. Education is action and being so, it should satisfy certain requirements of praxiology. Its progress should be determined in the first place by particular principles established in consideration of objectives of education and the desirable nature of character-forming processes. For the purpose of educational activities in institutions of higher education the principles should meet the following requirements: 1) being internally cohesive set of directives, devoid of incongruity and potentially essential in achieving the established ends, 2) applicability in all educative activities, 3) being an inspiration in setting tasks for the managing centres. In this context the following aspects of the problem under discussion appear to be the key ones:

— the intentionality of educative measures, that must not be consequent upon occassional needs or instrumental treatment of students, but should rather stem from the knowledge about the desirable changes in students' attitudes in consideration of the target patterns specified in the account of educative objectives. Consequently educative measures must not be referred to as a minor product of education, but like research, instruction or economic

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activities should be intentional, well-planned and organized with due regard being paid to the altering needs and attitudes among students emerging from the successive stages of receiving academic education. Intentionality understood in this way would imply the introduction of management of educative activities including: planning, organization, co-ordination, stimulation, control and valuation;

— systematic exercise of educative measures. The current state of educative practice is marked by sporadicity, tendency to launch or intensify educative activities in connection with oncoming important occassions and relying on emergency measures. These features of the practice encourage students' passiveness and badly upset effectiveness of intentional measures, which leads to the reinforcement of non-educative effects of university environments. The requirement of regularity might help to overcome the present situation, the effects of its fulfillment being as follows;

— the factual activities pursued by universities in the field of educative measures could be the expression of a coherent conception covering performance of all parts of the structure, at every point of students' progress through the course of their studies, and specifying the areas to be affected by the educative measures, the intended kind of experience to be acquired by students in those areas consequent on the use of the measures, and the stage of the studies to see the implementation of the measures. The tasks stemming from this would be distributed over the given year and the entire course of acquiring higher education;

— the educative measures might be devised in such a way as to provide for gradual growth of the tasks and requirements as students complete the successive stages of higher education;

— regularity of educative activities would be ensured, safeguarding continuity of students' activeness, to put an end to actions taken once in a blue moon, and to irregularity of educative work. The fulfillment of the requirement of regularity and orderliness might well ensure the continuity of character-forming measures, increasingly activating the young people's willingness to be engaged in their academic community life, as they advance to the successive years of studies;

— the commonness of the participation in educative activities. The organization of operations of an institution of higher education should provide for common participation in the educative activities, which appears to be the precondition of achievement of the higher education objectives. The success depends on the consolidation of efforts of the staff, students' representatives and students' organizations, for educative results in highly complex educational institutions such as institutions of higher education, are consequent not on work of individual persons or parts of the structure. They are generally accomplished through active involvement of a number of individuals or parts of the structure engaged in complementary activities to achieve a common objective. Thus what really matters in educative activities of an institution of higher education is not so much an individual teacher and his individual strategies of exerting influence, but rather joint efforts of teams of teachers and students aimed at the improvement of the organization of the environment where educative measures are to be pursued. Hence the need for purposeful educative involvement of individuals, units and institutions operating within the framework of institutions of higher education that students deal with. The involvement is effectuated when;

— every university teacher shows educative activeness with the intention of achieving his university's objectives and not just the aims of the subjects he teaches or his private ones;

— every part of the university's structure is assigned its particular, specific educative tasks, both in teaching and other activities;

— every level of management of the operations of the school takes educative problems into consideration in its activities. Such conditions may encourage occurence of opportunities to overcome passive attitudes in educative activities. Inadequate organization of operations of institutions of higher education increases the probability of university teachers' refraining from educative work. Most of them see it as a voluntary activity and not part of their duties. They often fail to grasp the opportunities of intentional affecting the students' attitudes, motives and actions belonging to the tasks they are supposed to pursue;

— the integration of character-forming activities. This occurrs when character-forming processes effectuated by all parts of the structure show the degree of integration most conducive to the achievement of the objectives of an institution of higher education, which being a complex establishment is marked by the existence of numerous centres exerting influences on young people, and that appears to be both its advantage and disadvantage. The advantage lies in the fact that the presence of a number of sources of impact provides conditions for the pursuit of a variety of activities, and consequently of acquiring various experiences. What we mean by disadvantage is the likelihood of occurrence of far-reaching disintegration of influences, a side-effect of having more than one source of influences. Different parts of the school's structure take different and separate actions for purposes that remain unknown to all but the actor. In such circumstances the absence of functional links leads to the disintegration of expectations towards students and also in the favoured attitudes to propagated values and aims in life. This necessitates the formation of conditions of the integration and harmonizing influences of the academic environment in different dimensions;

— the dimension of aims and tasks for the unification of effects can only take place where the educators arrive at an agreement on the choice of the kind of personality to be aimed at. Hence the necessity of establishing identical understanding among all those involved in the pursuit of educative activities of both the general aims of the institution of higher education and the aims characteristic of the given faculty or specialization. This leads to the unification in the realm of expectations, requirements and ways of judgement;

— functional dimension, for the integration of objectives requires the establishment and observance of variety of connections between tasks and those who perform them, that provide for a co-operation between them and managing centres to enable the implementation of the principle of different parts of the school's structure contributing to the achievement of its objectives;

— the dimension of information for co-operation is only possible in the conditions of the exchange of information. Hence the necessity of establishing an information network between managing centres and performers as well as between individuals and units directly engaged in handling tasks. A range of facts explaining the basic aspects of the units' operations must be made available to those who supervise their work or co-operate with them;

— the dimension of control since the implementation of the principle of contributing to the achievement of the objectives of higher education necessitates the existence of centres to integrate actions of various components of the structure and to perform the basic functions of management: planning, co-ordination, stimulation, control and valuation of the components;

— the autonomization of educative activities. The social system of institutions of higher education exerting general influence also shows functional diversification. The different components of the structure fulfill diverse educative functions. The results of their performance are determined both by the degree of the integration of the activities and the scale of their autonomization, which consists in accomodating the rules applicable to an institution of higher education as a whole, to the conditions of a given component of the structure, staff's capacities and needs of the students affected by the operations of the component[3]. Autonomization involves the choice of optimum opportunities, the possibility of selection from among the initiatives coming from the managing centres compatible with the capacities of a given component, creation of new structures engaged in the pursuit of educative tasks, coming up with independent new educative initiatives, establishing new, separate incentives to stimulate the activeness of staffers and students. All of these enable the enrichment of the character-forming influences of institutions of higher education, dissemination of educative initiatives, existence of a margin of freedom for participants of the educative process to give expression to ideas of their own, show more

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[3] Tomaszewski T.: *Aktywność człowieka (w:) Psychologia jako nauka o człowieku (Human Activeness (in:) Psychology as a Science on Man).*

dedication to the activities and get more satisfaction in the pursuit of the activities.

The afore-listed features and principles of organization of character-forming influences of institutions of higher education enable the achievement of the state in which a university might be a true environment exerting powerful character-forming influences, with intentional influences dominating the arrangement; conditions enhancing students' general activeness are created, the activeness being compatible with the changing needs and attitudes in the successive stages of progress through education; multidimensional activeness fosters development of the trend of self-education and the related self-educational activeness.

К. ЯСКОТ

Условия эффективности воспитания в высшей школе

На всём протяжении учёбы происходит развитие многих важных областей психики. В это время интеллектуальные возможности личности достигают своих вершин, стабилизуется система ценностей, усиливаются мировоззренческие проблемы, осваивается комплекс функций взрослого человека. Способность высшего учебного заведения стимулировать и направлять это развитие требует исполнения многих разнородных условий. С точки зрения намеренного воздействия этих влияний, особенного внимания заслуживают две группы обусловленностей.

К первой группе относятся те, которые связаны с характером вузовских процессов, формирующих личность. Влияния вуза должны характеризоваться определенным комплексом свойств, чтобы можно было назвать их эффективными. Благодаря этим свойствам будут создаваться психообщественные условия, благоприятствующие формированию у студентов желательных индивидуальных наклонностей (условия педагогического рода). Среди

них найважнейшими можно назвать: высокую активность студентов; коллективность их жизни и работы; самоуправление студенческих коллективов; взаимодействия преподавателей и студентов (воспитательное партнерство).

Вторая группа условий связана с организацией процессов формирования личности в вузе. Их появление должно гарантировать четкость, рациональность и совокупный характер этих воздействий (условия праксеологического рода). В этом случае наиважнейшими можно назвать: намеренные воздействия; их систематичность и всеобщность участия в воспитательной деятельности вуза; интеграция этой деятельности и автономизация. Осуществление упомянутых условий позволяет добиться положения, когда вуз становится сильно воздействующей на личность студента средой, прчём намеренные влияния доминируют в целой структуре: развивается активность студентов согласно их изменяющимся потребностям и ориентацией в разных стадиях учёбы. Это способствует развитию тенденции и активности в самовоспитании.

K. Jaskot

Las condiciones de efectividad educativa de la escuela superior

En el curso de los estudios tiene lugar el desarrollo de varias ramas importantes de la psíquica del estudiante. En este tiempo el individuo llega al apogeo de sus posibilidades intelectuales, se va estabilizando el sistema de valores, aumentan los problemas en torno al punto de vista de uno, se va dominando los papeles complejos del adulto. La capacidad de las escuelas superiores de estimular y dirigir dicho desarrollo exige el cumplimiento de muchas condiciones de diversa índole. Desde el punto de vista de la intencionalidad de este tipo de influencias hay que mencionar dos grupos de condiciones que merecen especial interés. Formal el primer grupo, las directamente relacionadas con el carácter de los procesos de formación personal del estudiante, que tienen lugar en las universidades. Para que las influencias de las escuelas superiores sean eficaces, deben responder a cierto tipo de características, gracias a las cuales serán creadas condiciones psico--sociales, propicias a la formación en los estudiantes de las deseadas disposiciones de personalidad (condiciones de tipo pedagógico). Las más importantes de ellas son: mucha actividad de los estudiantes, colectividad de su vida y su trabajo, autogestión de los grupos estudiantiles, colaboración de los profesores académicos con los estudiantes (plataforma común educativa). El segundo grupo de condiciones está vinculado con la organización de los procesos de formación de la personalidad del estudiante en la escuela superior. Su aparición debería garantizar la efectividad, racionalidad y carácter complejo y unitario de estas actividades (condiciones de tipo pracseológico). Las más importantes de ellas son: la intencionalidad de las actividades, su sistematización y amplia introducción de ellas en la labor educativa de las escuelas superiores, integración de dichas actividades y la autonomía. La realización de las condiciones en cuestión hace posible que la escuela superior represente el ambiente que influya fuertemente en la personalidad del estudiante, teniendo las influencias intencionales el papel dominante en todo este sistema, puesto que se va desarrollando la actividad de los estudiantes conforme sus cambiantes necesidades y sus ideas en varias fases de los estudios, lo que a su vez contribuye al desarrollo de la tendencia y la actividad autoeducativa.

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Economic Aspects of Training at Institutions of Higher Education in People's Poland

by

MICHAŁ GMYTRASIEWICZ

The restoration and development of higher education was one of the many tasks Poland was facing after the end of the Second World War. The nation's intelligentsia was the social stratum that suffered particularly grave losses during the German occupation. In 1938 there were 80 thousand citizens holding university degrees. The war operations, and the occupiers' terror disrupted the lives of some 40 thousand university graduates. The number includes: 7.5 thousand doctors, over 6 thousand scientists, professors and teachers, more than 5.5 thousand lawyers, 2.6 thousand catholic priests. It is also to be noted that except for the clandestine, underground academic courses, the normal operation of higher education was totally halted during the occupation, which disrupted the supply of the highly-skilled personnel to the national economy and culture. Cautious estimates demonstrate that had it not been for the years of the occupation, the number of graduates from institutions of higher education in 1940 - 1945 would have totalled some 37 thousand, a heavy loss followed by important economic and social after-effects, which made the training of highly skilled personnel a post-war priority. By 1950/51 the number of students attending institutions of higher education amounted to 125.1 thousand. By 1977 the number continued to grow and eventually

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totalled 491.4 thousand, i.e. 293 per cent more than in 1950. The biggest number of students in the history of People's Poland was reported in the academic year 1977/1978. The close of the seventies saw a substantial decrease in the number of students. The figures were: 454 thousand in 1980/1981, 426 thousand in 1981/1982, 397 thousand in 1982/1983, 370 thousand in 1983/1984 — the enrolment smaller by 120 thousand than that in the peak-year.

A careful examination of the 1951 - 1983 facts and figures indicates that the dynamics of the development of higher education was diverse during the period. The years 1951 - - 1960 show the lowest pace of the development. The number of students increased by 33 per cent then, while the most rapid growth took place in the years 1961 - 1970, the relevant figures demonstrate a 100 per cent rise in the enrolment. The last decade (1971 - 1980) was marked by a much smaller dynamics of the growth of the number of students as compared with the previous periods. It was slightly higher than that of the fifties.

In 1946 - 1982 1470 thousand university graduation diplomas were conferred. The figures for the respective three decades are:

1951 - 1960: 229 thousand
1961 - 1970: 302 thousand
1971 - 1980: 695 thousand

These indices demonstrate a significant acceleration of supplying the national economy and culture with university graduates, and substantial increase in their number.

An examination of the structure of Poland's population according to the level of education possessed by individual citizens indicates that the recent years have a relatively fastest growth of the percentage of the population holding university degrees. In 1970 the number was 655 thousand, in 1982: 1458 thousand, which represented respectively 2.7 and 5.3 per cent of this country's population. Worth-noting in this connection is the very rapid diminution of the difference between the number of men and women holding university degrees. In 1970 women made 33 per cent of the total number of university graduates, while 12 years later the percentage was 45. This was a result of the growing feminization of numerous faculties of higher education. Equally fast progressing was the saturation of the state economy with university graduates.

The numbers of academic degree holders in a thousand of the totality of employees were as follows: 1958: 37, 1964: 43, 1968: 48, 1978: 74, 1982: 87. In 1983 the number of employees having higher education in the state economy exceeded 1 million. The proportion of women in the total number of employees with higher education has been growing too. In 1970 the percentage was 37 and in 1982 it was as high as 46.

The development of higher education in People's Poland (as well as in other socialist countries) was marked, in contrast to the capitalist countries, by the existence of a relatively high proportion of students and graduates from faculties of special importance to economic development, such as technological studies, as well as agricultural and economic faculties. Relatively smaller percentages of students were reported at faculties of arts. The result was extremely high expenses involved in the development of this country's higher education (technological studies cost two or three times more than educating a faculty of arts graduate). Hence the disproportion between the enrolment figures in Poland's higher education system being smaller than in the relevant western educational institutions, and the size of outlays for the needs of higher education in Poland (a heavy burden on the national revenue), being comparable, especially in the years 1965 - 1975 with the similar expenditures in the advanced capitalist countries.

In the recent years higher education has undergone numerous changes in methods, forms and types of studies. The operations of the system of studies for holders of regular jobs appears to be the most complex problem belonging to this subject area. In the first post-war years the traditional residential full-time studies were the sole type of academic education available, but as early as 1948 evening courses and extra-mural courses began to operate. In the academic year 1972/1973 35 per cent of the total number of students followed these two types of education, and the percentage of the graduates was about the same. In the seventies signs of crisis began to emerge in the system of studies under discussion and the percentage of the working students dropped to 28 per cent in 1982/ /1983.

The rapid development of evening, extra-mural and university extension-type studies was consequent upon the necessity of creating conditions to give the chance of receiving higher education to those who had not had such opportunity in the pre-war Poland and during the Nazi occupation. The principle mainly applied to individuals from labourer or peasant families who were being appointed to prominent posts in the central state agencies, economy, civil service, in political and public organizations in consideration of qualities of their characters and diligence. They could hardly be released from performance of their routine duties and directed to residential, full-time studies. The curricula of extra-mural or evening studies were devised accordingly.

The principal objective was to supply the students with theoretical foundations for their vocational experience of the job. However, as years went by, the social base of the studies began to disappear. The new candidates belonged to much lower age-groups. There were instances of secondary school graduates applying for admission to the studies for workers. Their vocational experience was very poor, among other reasons because of the fact that they were working in minor posts after graduating from secondary schools. Under such circumstances the hitherto curricula of extra-mural and evening studies designed to provide but theoretical education proved extremely unsatisfactory. This might also have legitimized the opinion that too frequent were the instances of graduates of extra-mural and evening studies providing performance that was significantly inferior to the quality of work done by those who completed residential studies.

The first steps in analysing problems relating to further development and operations of studies for regular employees should be: a definition of the doctrine of education, identification of the correlations (dependent upon the subject area of the studies) nonresidential, full-time studies and those for people engaged in vocational activities, and finally the pursuit of new methods and forms to be employed in this kind of education.

The judgement of the development of higher education in Poland must involve the question of its qualitative aspects which appears to be exceptionally essential, as results of the numerous inquiries demonstrate that the development of students' education has been clearly extensive i.e. characterized mainly by the growth of the figures which was not matched by a tangible improvement of teaching conditions and an increase in the resources necessary for the proper operations of institutions of higher education or the achievement of better standards of the graduates' training. This has been particularly relevant as regards the types and faculties of education showing strongest connections with the needs of the national economy (technological, agricultural and economic studies), as well as those whose graduates find employment in such sectors of public services as: education, civil service and health protection. The reported improvement of the standard of the graduates' competence did not answer the potential needs of the economic and social organizations, establishments, businesses or institutions. It is also to be noted in this connection that the graduates' environments were very much diverse in respect to skills and amount of knowledge possessed. Part of them even failed to keep up to the average standards of education. The possession of university diplomas entitled the graduates to apply for and receive the same kinds of jobs as those available to their colleagues who were fully prepared for performing their vocational duties. The economy absorbed virtually all graduates showing little or no interest at all in the actual quality of their competence and capacities.

All this led to the alleviation of the effects of education and employment of university graduates on technological, economic and organizational advancement, and consequently on the development of the economy taken as a whole. The theory that inevitably suggests itself at this point of the present argument is that qualifications of part of the personnel holding university degrees are not genuine but dubious, for their performance on the jobs betrays the absence of the desirable competence. This supposition concerns most of all the part of the personnel holding the jobs that require qualifications different from those they have acquired in the course of their vocational training or those confronted with the absence of opportunities to improve their qualifications on their present jobs.

The economy did not object against such trends in the development of higher education. Production and services, being by international standards below rather than up to the mark and largely dependent upon the imports of western know-how and technologies, but on the other hand spectacularly advancing, required most of all big numbers of highly skilled personnel. That the badly needed employees' competence was merely satisfactory was not seen as too important a problem. Under those circumstances the economy's pressure was aimed rather at the permanent increase in the number of employees having university education than at the improvement of the standard of their competence, which was also convenient for the institutions of higher education as they were not compelled to seek strategies designed to raise the quality of the graduates' training. The situation resembled a sort of a vicious circle. Economic organizations were demanding (primarily by exerting pressure on the bodies responsible for forecasting demand for highly skilled personnel) more and more graduates, in consequence of which institutions of higher education were operating with intensity verging upon exhaustion of their productive capacities, the circumstances that precluded both possibilities of taking measures aimed at raising the standards of education and the related motivation for starting such activities.

The seventies and the eighties saw the growth of the difficulties in providing proper employment and utilizing vocational skills of university graduates. The crux of the problem was not the unavailability of jobs on the labour market. Most of the employment offers concerned unsophisticated trades and occupations in which the skills acquired at universities were partly or totally irrelevant. At the same time in short supply were the jobs suited to the level and structure of education of the graduates.

Among the factors that triggered the situation were the following:

a) The economy did not show satisfactory interest in full utilization of the graduates' qualifications. Many inquiries demonstrate that quite common was the practice of assigning the employees holding university diplomas the jobs that did not require their qualifications, which was not justified by the needs of production provided by a given establishment. Likewise, too frequent were the instances of incompatibility of the employees' education and the duties they were assigned. Important drawbacks were reported in connection with the utilization of working hours in the organization of the graduates' work. It should also be noted that the highly-skilled personnel were not always employed in the branches of the economy capable of providing conditions for the achievement of maximum productivity of their performance. For example the employment indices for engineers in the branches of industry playing the key role in the promotion of technological advance and dynamics of economic development (such as electronics or electro-engineering) have always been much lower in this country than in advanced capitalistic countries, while opposite trends have been reported in other branches of industry.

b) According to the estimates made by some foreign experts, the facts about employment in many branches of Poland's national economy indicate the existence of excessive proportions of highly skilled personnel among the totality of workers (i.e. the problem of the so-called overskilled employment). This means that these branches show the existence of excessive proportions of the highly skilled personnel in relation to the total number of employees, as well as their production capacities and labour productivity and quality of the production provided. Apart from this judgement many party and government publications have pointed out that the manpower potential accumulated in this country's economy should show more enterprise and energy in utilizing for production purposes the findings of research projects as well as in the activities aimed at promotion of organizational and technological advance. These expectations posed particular challenge to graduates of technological universities, colleges of engineering, economic academies and universities. The experience of large capitalistic corporations and some of the socialist countries (e.g. the German Democratic Republic) indicates that it was the new graduates, full of energy, committed to the transformation of the existing operational strategies, imaginative and highly competent, well familiarized with the novelties of the contemporary knowledge in their respective fields, that have proven to be the agents of promotion of technological, organizational and production-related novelties. In this country, however, these, experiences have been assimilated rather reluctantly.

c) Although these problems have been perceived and debated upon for a long time now, the situation has not improved. Almost all analysts tend to hold the economy responsible for the trouble believing that the present difficulties in effective employment of the graduates could be terminated or scaled-down if the economy showed a greater than so-far determination to promote and encourage technological, organizational and economic advance, which is a sound view, for what is really needed is the invention and activitation of the economic and social devices that could help step the effectiveness up. One of the major issues belonging to this subject area is the process of socio-vocational assimilation of the university graduates in workplaces. I believe that this problem has been misinterpreted and inadequately handled in the conditions of the present objectivity. The hitherto experience shows that even the best trained graduates get stuck in the red tape of organizational schemes and adjust, sometimes because they feel comfortable, but most often because it is simply inevitable, to the organizational and technological underdevelopment, as they are unable to overcome the obstacles that restrict or hold their progress of their careers back. Is this the way the process of assimilation on the job was meant to be? The rules and measures applicable in the process need prompt changing. It is work establishments that should accomodate to the university graduates' sophisticated modern knowledge. Thus the pattern to be established is: work establishments acomodating to the graduates' knowledge, aspirations and commitment to the pursuit of novel solutions, and not its opposite: the graduates conforming to the existing routine. The fulfillment of this task requires the abandonment of stereotypes and routine not only at work establishments but also in educational institutions that must not remain passive, confining the pursuit of the establishment of close connections between the curricula and the requirements of vocational praxis to the mouthing of declarations, or forgetting the graduate after having issued him the diploma.

d) The signs of the misuse of qualifications of the highly skilled personnel began mushrooming in the second half of the seventies, which was consequent upon the collapse of the favourable economic situation in general and of the decline in the pace of investment in particular. Looking back, this is understandable as it is quite natural that investment process and the realization of specific projects involve the emergence of demand for more employees.

These circumstances seem to legitimize the theory that the involvement of higher education in the promotion of development and effectiveness of the Polish economy has been too modest so far. It is also to be noted that a graduate may only pay back society these costs of his education when his job provides opportunities of optimum employment of the knowledge and skills he has acquired at school.

The constant growth of the number of the graduates whose qualifications have either been totally wasted or utilized only in part, necessitates seeking avenues of making a proper use of this potential of education. Skills and competence may easily become obsolete if they are not utilized or improved on the job for too long. The decline of vocational usefulness of the inadequately employed graduates is a natural effect of the altered technologies, techniques and organization of production. The progress of the decline is directly proportional to the adaptation and advancement of scientific and technological achievements of international renown. All this shows how inaccurate is the theory that graduates from institutions of higher education may, in line with the economic standards be trained in a way, against a rainy day, with no consideration for the sound evaluation of quantitative and structural needs of the economy. For the theory has it that the possible surplus of the graduates could be utilized in the indefinite future. This kind of logic though takes no notice of the fact that education acquired some years ago, but never utilized or developed during the vocational career, begins to shrink. Thus in the event of the emergence of the need for using the "deposits" of education either on the limited scale or in view of demand affecting the whole

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of the economy it may show that education is of dubious standard that falls very much short of what one could except of competence and skills desirable in the times when they are to be employed. The past years saw the growth of the impact of the determinants I have identified in the context of the socio-economic objectivity of this country on the formation of the students' and graduates' attitudes and aspirations. The graduates have expected that their education status should be matched by the size of their salaries, attractive employment offers and high professional prestige. The conditions for the fulfillment of such aspirations have traditionally been created by the state in People's Poland. This explains why the graduates' discontent with the growth of difficulties in this field have always been aimed against the state. Many inquiries have indicated the presence of the moods of frustration, disappointment and weariness among the graduates confronted with their jobs' experiences, which was consequent upon the traditionally highly instrumental treatment of education by this nation, who regard climbing the steps of the education ladder possibly including completion of higher education at the most reliable way to achieve the well-being and rise in social status. There has been a gap between this state of social consciousness that was formed over the first 25 years of People's Poland and the real experience of the recent years. Education, including university training is no longer as powerful and autonomous a carrier and booster as it used to be, which is reflected in the present state of social consciousness. The decline in the prestige of many occupations performed by graduates from institutions of higher education and smaller interest in the pursuit of higher education among labourers' and peasants' children, are but two signs of the change.

Students' environments know very well of the difficulties the graduates face while looking for jobs. This knowledge is one of the factors responsible for the deterioration of the climate of studies. It also prevents the development of students' motivation, a powerful stimulus affecting the standard and efficiency of education acquisition process. Under the present circumstances students increasingly show the trend to weather the studies rather than to work hard.

These circumstances as well as demographic determinants have also resulted in the decrease in the number of candidates willing to embark on the painstaking process of acquiring higher education. In the year 1975, 156 thousand candidates took the residential, full-time studies entrance examinations, while in 1981 the number was smaller by as many as 40 thousand. Even more dramatic was the slide-down in the number of candidates for on-the-job university courses. This has continued to affect most of all the so-called difficult faculties especially those which can hardly ensure good employment prospects, meaning attractive job with high salary. The reasons are multifarious. One of them is the smaller-than-before impact of the achievement of the status of a holder of a university degree on successful pursuit of vocational career that I have mentioned above. Now I should like to point out that the acquisition of university knowledge, especially at technological universities, medical academies, and agricultural colleges requires enormous amount of students' hard work that measured solely by the number of hours devoted to it proves to be more time-consuming than a labourer's job. When we look into this problem in terms of economics, it must be noted that the amount of work done in the course of university studies should pay back in the form of higher income on the job after graduation, whereas the correlation between education and pay has always been vague in Poland, and at the present moment different kinds of evidence and experience indicate that more attractive are the occupations that do not require higher education qualifications.

Besides, this situation is typical not only of Poland, but is also found in the advanced capitalistic countries, whose experts say that the near future is likely to see radical transformations of the traditional hitherto correlations between pay and education, as the rapid increase in the number of university diploma holders will be attended by the shrinking of the resources of labourers doing hard work that does not require highly skilled personnel, or must be carried out in hazardous conditions and enjoy little respect in society. These jobs must be done, so that society could properly function and develop. Thus under definite circumstances, it might be indispensable to reward this category of employees more than those engaged in more sophisticated vocational activities, possibly enjoying great public respect. Consequently there is a high likelihood that unsophisticated and relatively unattractive jobs might be taken on by individuals whose vocational qualifications far exceed the requirements posed by a given occupation, in which case a relatively higher pay could be seen as a sui generis recompense for the absence of the pleasure stemming from having the job suited to one's qualifications. Some of the highly-advanced capitalistic countries (e.g. the FRG, France, Switzerland) might already have been confronted with the necessity of taking such measures were it not that they started extensive imports of foreign unskilled labour force. The United States copes with the problem by employing the black population or Mexicans. It is only due to the fact that these categories of labourers are determined to take on any job and for relatively low pays that the said countries have managed to retain the traditional correlations between pay, education and the kind of employment, which, however, is complemented by the irony of the growing unemployment among young holders of university diplomas and common employment of gastarbeiters.

There is a correlation between the effectiveness of the utilization of the university graduates' skills and knowledge and the doctrine underlying the planning of higher education development. The presence of the close relationship of politics and the planning of the development have not always been recognized. Planning in higher education should serve as a device for the implementation of the long-term policy in higher education. Elaboration of proper instruments of planning based on economic and social premises is of crucial importance to the implementation of the policy in line with the originally established principles. Quite wide-spread has always been the tendency blaming the planning of higher education development for the evils for which the unsatisfactory state of the educational policy was actually responsible. The criticism was heard especially during the periods characterized by the absence of a sound long-term policy of the development of higher education. Under such circumstances one could hardly expect the planning to successfully replace or substitute for a policy of developing university training.

Planning in higher education should be linked to the forecasting of education and employment of the highly skilled personnel, the correlation that has been at best occasional so far, among other reasons because for one thing, methodology of the forecasts has not been based upon the sufficiently scrutinized foundations, and for another, the hard-to-predict social and economic developments upset the credibility and usefulness of the forecasts. For instance one cannot ignore at the present moment the determinants stemming from the current economic crisis and the pursuit of the economic reform even though their potential impact upon education and employment in the near and more distant future can barely be predicted with a desirable accuracy. Moreover, the past experience shows that economic advancement in this country has always been a particularly irregular and uneven process, that has progressed with periodic collapses and accelerations that could never be predicted early enough. That is why it is a very hard task to devise a forecast containing more than the identification of the major difficulties and threats to the proper progress of the development, a definition of the demographic proportions of the process, enumeration of the principal determinants of education and employment and possibly speculations on the main trends in the evolution in this field.

Over the period when the national economy's demand for highly qualified personnel exceeded the universities' capacities of answering the needs, the forecasting and planning of the development of university training was essential only with regard to the structural aspects of the process (adjustment of main lines of education to the economic needs, for any number of university graduates would be immediately absorbed by the economy. The quantitative development of higher education was hindered then by the economic capacities of the state (expansion of the universities' infrastructure, the financing of students' education) and the existing state of the educational capacities of individual institutions of higher education. These difficulties are replaced by the others when the economy reaches the point of a relative saturation with the best-qualified personnel, that is when problems relating to effective employment of the graduates begin to emerge.

This kind of trouble tangibly surfaced at the turn of the sixties. The contemporary planners were expected to provide precise characterization of not only the structure of education lines to be established but also the optimum number of the graduates, which made the process of planning unusually complicated. Besides, it is to be explicitely stated that the institutions engaged in elaborating the plans committed numerous essential mistakes consequent upon the absence of proper methodological foundations. The main question involved in the subject are under discussion that requires examination is: how much importance could or should be attached to the role to be performed by non-economic factors, first of all in the policy of development, and next in the doctrine and methodology of planning higher education under the above described circumstances.

Another matter that appears to be worth-looking into, as we reflect on the problems of higher education and the employment opportunities for the graduates, is the impact the recent years' economic crisis in this country and the currently pursued economic reform have had upon the training at the university level and the situation of the diploma holders.

Different kinds of evidence indicate that higher education was vulnerable to the effects of the crisis. Among the facts:

— the number of students in the years 1977 - 1983 decreased by 120.000;

— the number of graduates dropped from 82.000 in 1978 to 69.6 thousand in 1983, while the outlook for the next years indicated further decline in the number of candidates for admission to the first year of studies;

— emergence of the first signs of decrease in the number of university employees. In the academic year 1983/84 there were 340 staffers fewer than the year before. The most serious slidedown was reported among senior assistant lecturers whose number dropped by 525 in 1980/ /81 - 1983/84;

— severe reduction (especially in terms of the real value) of the investment outlays on higher education, which had inevitable negative effects on the process of the reconstruction and development of the technological and scientific infrastructure of institutions of higher education;

— decrease in the size of the higher education spending in the totality of outlays on education, from 25.4 per cent in 1975 to 21.5 per cent in 1983. The international statistics demonstrate the existence of quite an opposite tendency in the intermediately and highly developed countries: the permanently increasing percentage of expenditures on higher education in the overall spending on training;

— the growing disproportion between the average pay in the state-owned economy and the average incomes of university employees.

We might conclude this part of the present argument by saying that the difficulties higher education in this country is facing are those of the effects of the economic crisis and consequently are to be seen as a temporary trouble. There are, however, more questions arising when one tries to foresee the possible scale of these difficulties in the oncoming years, their duration and the effects they might have on the educational and research capacities of institutions of higher education. In other words, the problem we are likely to be confronted with is the possibility that the present deterioration in the conditions of the functioning of institutions of higher education might have long-lasting destructive effects on the universities' performance. It is also to be remembered that a prolonged standstill and the absence of necessary adjustments in higher education are tantamount to a regression. Hence the need for the pursuit of measures that could lead, through the inevitable improvements to the adjustment of the higher education system to the altering of economic conditions with the view of protecting the basic educational and research resources.

The economic crisis has aggravated the academic diploma holders' employment problems, a consequence of the production slide-down, dramatic curbing of investment outlays as well as employment cuts among the bureaucrats running the country's economy.

As for the scale of the economic reform's impact on higher education, the first fact to be noted is that educational activities of the schools have not been affected by the reform's strategies as yet. The institutions have not been compelled to start reformatory adjustments, the situation that could be convenient in the short run, but involves no prospects of progress. For that reason it seems quite natural that higher education should look into the possibility of changing the existing educational doctrine and the model of the graduate in the context of the needs stemming from the reform.

Analyses of facts about employment and performance of the highly-skilled personnel indicate that the two-year-old economic reform has not brought about an increased concern about the proper utilization of the graduates' competence or more effective organization of their work. No important endeavours have been made to actively utilize the accumulated resources of personnel holding university degrees with the view of accelerating the process emerging from the crisis. One could hardly provide a well-considered judgement of the situation. What seems to be certain though is the fact that the reform lacks the instruments that might help resolve the problem of the utilization of qualifications. However, it is believed that the businesses' pursuit of increased effectiveness of management, being the reform's principal objective, is likely to bring about, among other things, greater concern about proper management of the highly qualified personnel resources. I tend to believe though that the achievement of this goal is the matter of a distant future, while the problem is so pressing that it might be desirable to add one more instrument to the arsenal of the reform's operational devices: the economic stimuli activating the businesses' interest in ensuring proper employment and utiiization of the competence of university degree holders.

M. ГМЫТРАСЕВИЧ

Экономические проблемы обучения в вузах в Народной Польше

В статье обсуждаются основные экономические проблемы обучения в вузах в истории Народной Польши. Обращается особенное внимание на тот факт, что раз-

витие высшего образования в Народной Польше характеризовалось, по сравнению с капиталистическими странами, относительно высокой численностью студентов и выпускников, выбравших специальности тесно связанные с развитием народного хозяйства (технические, сельскохозяйственные и экономические специальности). Сравнительно меньший процент молодежи выбирал гуманитарные науки. Результатом этого была особенно высокая фондоёмкость развития нашего высшего образования (затраты на обучение выпускника технического вуза вдвое или даже втрое выше, чем выпускника гуманитарного вуза). Такое положение вещей стало причиной того, что при низких показателях развития обучения в вузах, нагрузку народного дохода связанную с расходами на эти вузы в Польше можно было сравнить с высокоразвитыми капиталистическими странами.

Оценивая развитие высшего образования в Народной Польше, обращено внимание на качественные аспекты развития. Многочисленные исследования показывают, что эволюция обучения студентов в минувшие годы носила характер явно количественный (экстенсивный). Рост числа студентов не сопровождался заметным улучшением дидактических и материальных условий функционирования вуза, не сопровождался также повышением качества обучения выпускника. Важен также тот факт, что среда выпускников была весьма неоднородна, с точки зрения обьёма знаний и умения. Некоторые из них не достигли даже среднего уровня обучения. Эти выпускники, на основе своих дипломов, получали такие же должности на работе, как и их коллеги прекрасно подготовленные к исполнению профессиональных задач. Народное хозяйство поглощало всех выпускников, несмотря на уровень их знаний и умения.

В статье проведен анализ признаков и последствий ослабления развития высших школ за последние годы, а также анализ влияния экономической реформы на сферы обучения и исследований в высших школах. В связи с этим следует подчеркнуть тот факт, что вузы должны в ближайшее время взять на себя задачу изменить доктрину обучения и облик выпускника в свете потребностей, возникших вследствие реформы.

M. GMYTRASIEWICZ

Aspectos económicos de la educación en los centros de enseñanza superior en la Polonia Popular

Dicho artículo presenta los básicos aspectos económicos del problema de la enseñanza en los centros universitarios, a través de la historia de la Polonia Popular. Se subraya el hecho de que el desarrollo de la enseñanza superior en la Polonia Popular se caracterizaba, en comparación con los países capitalistas, por la relativamente alta participación de los estudiantes y licenciados de las carreras estrechamente vinculadas al desarrollo de la economía (estudios de perfil técnico, agrícola, económico). Sin embargo, hubo menor interés por carreras de tipo humanístico (relativamente menor porcentaje de estudiantes en las facultades de Humanidades, etc.). En consecuencia, el desarrollo de nuestra enseñanza superior exigía la inversión de ún capital considerable, puesto que el coste de la educación completa de un estudiante de carrera técnica es dos o tres veces mayor que el de humanidades. Dicha situación hacía que, aunque los índices relativos al número de estudiantes que cursaban los estudios en los centros de enseñanza superior fueran más bajos que los de los países capitalistas desarrollados, el presupuesto destinado a las inversiones en la enseñanza procedente de la renta nacional, era comparable con aquellos.

Valorando el desarrollo de la enseñanza superior en la Polonia Popular, se ha hecho hincapié en los aspectos cualitativos de éste. Numerosas investigaciones demuestran que el desarrollo de la enseñanza superior y el aumento del número de estudiantes no iba acompañado de una carácter visiblemente cuantitativo (extensivo). El aumento del número de estudiantes no iba acompañado de una considerable mejora de las condiciones docentes y materiales del funcionamiento de las escuelas superiores, ni tempoco de la mejora de la calidad de instrucción que haya recibido el studiante al graduarse. Hay que señalar aguí, que el ambiente de los graduados ha sido considerablemente diversificado en cuanto al nivel del conocimiento adquirido y las habilidades individuales. Una parte de estudiantes ni siquiera ha llegado a poseer el nivel de conocimiento equivalente al corriente modelo cualitativo de la enseñanza. Dichos graduados fueron empleados en varias ramas de la economía, ocupando los mismos cargos que sus condiscípulos bien preparados para la labor profesional, puesto que la economía de aquel tiempo, dada la demanda, absorbía a todos independientemente del nivel del conocimiento y las habilidades profesionales.

El presente artículo analiza los indicios y consecuencias del debilitamiento de las esculas superiores en los últimos años, como tambiéñ la influencia de la reforma económica en el campo de la enseñanza e investigaciones realizadas en las escuelas en cuestión. Así pues se ha señalado que las escuelas superiores, en vista de las necesidades que se desprenden de la reforma, deben en el futuro próximo emprender la terea de modificar la doctrina de la enseñanza como tambieñ cambiar el model del graduado.

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Higher Education in Poland in Comparison with Other Countries of the World

by

HANNA JABŁOŃSKA-SKINDER

Although the development of education all over the world takes place over long and incessant stretches, which is borne out by the growing number of people trained and an increase in scholarization indices, it is neither constant nor evenly spaced.

An example of this may be found in the expansion of higher education in many countries of the world in 1960 - - 1970 seen, in retrospect, as unprecedental.

The changes in the rate of education development also affect elementary and secondary education. But while on these levels of education one of the basic reasons for the fluctuations has been the demographic factor, higher education development has essentially been influenced by other factors.

The problems of conditions and the rate of growth of higher education become really pressing when the economic situation of a country deteriorates. Its first signal for institutions of higher learning is the financial squeeze and their graduates' employment set-backs.

What has been common for different countries of the world for many years and what is still very timely, is the quest for an answer to the question concerning the volume of education on the postsecondary level. Some of these countries' experiences prove that so far no satisfying answer has been found.

One of the possible starting points in the search for the optimum volume and rate of growth of higher education in a given country is to make international comparisons. On the one hand, they help to make a comparative evaluation of the education level development in a given country, but on the other hand — observation of the general and specific trends of the development.

In comparison with other countries, the development of education in Poland is frequently evaluated by presenting fragmentary statistical data which, in turn, shape views about its excessive or sluggish growth. And what is really important, both views run side by side.

Without overstating the value of the international comparison method and with a guarded approach to the findings because of methodological problems and a limited statistical material, I think that it is possible, within certain boundaries, to analyse the quantitative development of higher education of a given country in comparison with other countries in the world.

For this reason, I will try to evaluate the development of higher education and the third-level education in Poland in comparison with: 1) a group of socialist countries [1] and 2) a group of European Region countries [2]. The comparison will be very modestly supplemented with elements of qualitative comparisons since they also have to be considered approximate due to the differences in the system of education of various countries.

The comparison of the volume of education will mainly cover the number of students and less frequently — that of graduates. On the one hand, it results from the intention to assess the educational effort of those concerned, society and authorities of individual countries and, on the other hand, from the difficulties which the graduate population comparison faces due to diversified types and forms of education in individual countries.

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[1] It covers European socialist countries and Mongolia and Cuba.

[2] In compliance with the UNESCO classification it covers all European countries as well as Israel, Canada and the USA.

Acting on assumption that those interested in international comparison methods can familiarize themselves with some available articles on the subject[8], I decided to leave out these problems here. I only deem it necessary to say again that, in view of the above-mentioned limitations, any international comparisons can only be of an approximate character, sketching some basic trends in the development of a given phenomenon and their prospective changes. Generally speaking, that is enough to place a given country in a group of other countries as regards the development of education; it also helps to determine to what extent and in what respect the development of a given phenomenon is of a specific character. The comparisons of higher education development internationally require satisfaction of some definite conditions such as: the time cross-sections under consideration should be identical; the content of the categories being compared should be unambiguous; the standards used and ways of computing them should be uniform. While analysing the statistics used for this purpose such as those of UNESCO and COMECON and their comparisons with national sources of statistical data concerning the development of higher education, they found substantial discrepancies not only between the two main statistical yearbooks (of UNESCO and COMECON), but also differences between national and international information on the development of higher education. This is the effect of different classification systems, first of all, which, in turn, take as their starting point the notion of higher education and what it includes within the system of a given country. This paper, however, has not been intended to elaborate on this problem and the remark was only to emphasize that, for example, under the Polish system of education the term "higher education" is not synonymous with the "third-level education" or "postsecondary education" which is acceptable and in use in other countries. The proof of it can be found in, for instance, a very instructive and interesting publication Higher Education and Economic Development in Europe 1975 - 1980 which presents and analyses statistical data on the whole third-level education and whose title suggests that it deals with higher education. Hence, among other things, come the differences in the computation of indices for socialist countries if they are made on the basis of both UNESCO and COMECON statistics[4].

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[8] Comp. S. Colton: *Chaotic Uniformity in Higher Education*. „Statistic European Journal of Education", Nr 6, vol. 14/1979, pp. 379 - 387 and H. Jabłońska-Skinder, T. Obrębski, Pozycja Polski pod względem rozwoju szkolnictwa wyższego wśród europejskich krajów socjalistycznych i krajów EWG. „Dydaktyka Szkoły Wyższej nr 4/79, pp. 43 - 53.

Another problem is a nonstandardized interpretation of individual definitions of education types referring to subsequent levels of education (the fifth, sixth and seventh) in UNESCO statistics. The analysis of data on individual levels has shown that various countries classify their types of education in a very arbitrary way by ascribing them to definite levels of education and that is essential particularly when giving the number of graduates.

Following the assumption that international comparisons of quantitative trends and aspects of higher education development are really useful and are a starting point for the qualitative analysis, all efforts should be made to effect a full comparability of statistical data both within one data classification system or between systems.

A serious shortcoming of international comparisons concerning higher education is a three-year lag with socialist countries and about a five-year lag, and sometimes even longer, with the remaining ones particularly when one wants to compare larger groups of states. This, among other things, comes from the necessity to use one source of statistical data prepared by a specialized agency of COMECON, UNESCO or OCDE. It is possible, however, if one knows educational systems in individual countries, to make comparisons with a much smaller time lag depending on the availability of the statistical material and other information.

1. The Selection of Indices for International Comparisons of Educational Development. The outcome of the limited accessibility to statistical data concerning the postsecondary education and also differences in the systems of education on this level is that the comparison of education on the whole third level[5] carries a smaller error than in one of its parts — higher education. The same reason lies behind the fact that more reliable comparison results are obtained while comparing definite indices over longer periods for different dates than statistically for one definite date. That is why in order to make Poland's position comparable with the group of European Region countries, relatively simple indices have been selected, defining, for example, the volume of one phenomenon in comparison with another or the dynamics of these phenomena. For the group of socialist countries the comparisons were made on the basis of the COMECON statistical yearbook for 1982 while for the group of European Region countries — on the basis of the UNESCO statistical yearbook for 1980 with the reference of some phenomena and trends to the earlier periods.

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[4] *See Higher Education and Economic Development in Europe 1975 - 1980*. Cepes UNESCO, Bucharest 1983.

Despite the selection of such simple indices, as it will show later, not all of them can be applied to both groups of the countries because of the shortage of statistical data. For the group of the European Region countries, the indices were computed on the basis of statistical data from UNESCO yearbooks with the time lag of five years and with the exception of the scholarization index (the ratio of the number of students per 10,000 inhabitants in the 20 - 24 age group) which refers to the whole post-secondary education; the remaining indices apply only to its part (the sixth and seventh education level according to the international classification of education types used by UNESCO) which, in principle, corresponds to higher education level in most of the countries and at the same time to what is treated as higher education in the COMECON statistics. On the other hand, in the group of the socialist countries where the comparison covered education at the higher level exclusively, the COMECON statistical yearbooks lack data to compute the index of feminization of studies and the index of scholarization in the 20 - 24 age group. That is why in the attached tables and in the paper itself other indices were additionally used and their selection was determined by the statistical data available.

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[5] The third level of education covers all forms of education above secondary school, thus under the Polish system — beside institutions of higher learning also postlycée schools.

2. *The Development of Higher Education in Poland in Comparison with Socialist Countries.* Although in 1960 - - 1970 there was an expansion of higher education in Poland and in the group of the socialist countries, which was so typical of many other countries of the world, in 1975 - 1980 the quantitative development of Polish higher education in comparison with other socialist countries took a different course. In this group of countries Poland was the only one where the number of students diminished at that time by about seven percent; in respect of the dynamics of student population increase, it placed Poland eighth among nine socialist countries[6].

As regards the dynamics of the student population increase, with the year 1970 assumed as 100, Poland of 1982 placed fifth in the same group of the countries with the number of students and also the number of graduates per 10,000 inhabitants. Because of the above-mentioned lack of data, unfortunately, it is impossible to determine the scholarization index for the 20 - 24 age group for this group of the countries in 1980. However, by converting the statistical data concerning 1980 from the UNESCO statistical yearbook, it is possible to find out that Poland ranked approximately fifth in the group of seven socialist countries[7] with the higher education scholarization index of about 14 percent in the 20 - 24 age group. The difference between Poland and the Soviet Union, which was rated first in this group of the countries with the index of 21.1 percent, was 7 percent.

The absence of data in the COMECON yearbook concerning the number of female students makes it impossible to compute the indices of the degree of feminization of studies for all socialist countries. It is possible, however, to state, using other sources, that in the majority of socialist countries the share of women in the overall number of students has already exceeded 50 percent and in some fields of study (teaching, medicine) women constitute more than 80 percent of all students. For this reason, beside positive effects of this process for society, some negative aspects begin to emerge. For many years Bulgaria, East Germany, Hungary, the Soviet Union and Poland have belonged to the countries with a traditionally high percentage of women in the total number of students. In this respect, Poland ranked high fourth (in 1980) in international comparisons of various kinds.

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[6] These countries are included in Table 1.

[7] Without Mongolia and Cuba.

The partly different system of statistical data in the COMECON yearbook from the data classification in the UNESCO yearbook makes it difficult to compare the development of higher education in the group of the socialist countries with the use of the same indices as in the group of the European Region countries. However, other statistical information included in the yearbook concerning higher education renders it possible to make additional observations of some phenomena in the development of Polish higher education in comparison with socialist countries.

Since 1970 there has been a declining trend in the number of students per one university teacher in the group of the socialist countries as a result of a much faster rate of growth of teachers than students. It has also been characteristic of Poland where the ratio changed from 10 to 1 and 8 to 1 in 1970 - 1980. In 1982 Poland placed third in this respect.

The comparison of the structure of graduates according to the types of institutions of higher learning they graduated from shows that while the percentage of graduates from the studies linked with industry, building and construction, and transportation was on the increase in the socialist countries in 1970 - 1980, there was a declining trend in this sphere in Poland in the same period from 33 percent in 1970 to 26 percent in 1980. As for the percentage of this group of graduates in their total number, Poland ranked eighth in 1982 with the index of 25.2 percent. Interestingly enough, in the same year the percentage of the graduates in agriculture and forestry in this country, of 12.8 of the total number of graduates placed Poland first among the socialist countries. Later on it turned out that the increased enrollment in agricultural studies exceeded the real demand of that sector for people with higher education.

The size of education in intramural and extramural studies tended to develop quite differently in Poland than in other socialist countries. While the percentage of working students was on the decline in other socialist countries in 1970 - 1980, in Poland it showed an uptrend in the first half of that period to collapse after 1975; as a result, the percentage of extramural students in the total number of students fell from 40 to 30 in that period. In 1982 the index of the percentage of intramural students in the total number of people trained in institutions of higher learning was 71.3 and placed Poland sixth in the table, or vice versa — fourth as regards the percentage of extramural students in the overall number of students.

From the point of view of the present and future development of higher education, however, the most crucial conclusion is that the quantitative development of higher education in the socialist countries as indicated by the increase in the number of students has been losing momentum. On the one hand, it is connected with the fact that the economy's demand for qualified personnel has been satisfied, on the other hand, the development of higher education has been restrained for demographic reasons — population decline generations have been entering institutions of higher learning while the economy has been in need of less-qualified personnel. These phenomena prove that socialist countries are facing the necessity to define the educational doctrine concerning the development of higher education which would match public interest with that of the individual. Among other things, what is involved here is the revaluation of mass education goals on the higher education level — if it is to follow this trend in the future.

Some socialist countries have been considering a temporary freezing of the number of students with concomitant increase in the standard of education. That would be a new stage of higher education's intensive development[8].

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[8] *See Enseignement Superieur, emploi et progres technique en URSS*. IIPE, UNESCO, Paris 1962. D. Chruprunov, R. Avakow, K. Jiltsov.

Table 1

Basic data of the development of higher education in socialist countries in 1982

Country	Number of students per 10.000 inhabitants		Dynamics of students 1970 = 100		Number of students of the 3rd education level per 10.000 inhabitants in 20-24 age group UNESCO data		Percentage of intramural students in the total number of students		Number of students per one university teacher		Number of graduates per 10.000 inhabitants		Dynamics of number of graduates 970 = = 1[illegible]		Number of graduates trained for industry, building and construction and transportation per 10.000 inhabitants		Percentage of graduates trained for industry, building and construction and transportation in the total number of graduates		Number of graduates trained for agriculture and forestry per 10.000 inhabitants		Percentage of graduates for agriculture in the total number of graduates	
	Ind.	D	Ind.	D	Ind.	D	Ind.	D	Ind.	D	Ind.	D	Ind.	D	Ind.	D	Ind.	D	Ind.	D	Ind.	D
Bulgaria	85	7	93.0	8	15.7	4	78.2	5	6.4	2	19.1	7	129.8	8	6.0	6	31.4	4	0.7	9	3.6	9
Hungary	94	6	125.5	4	12.8	6	62.7	7	7.2	4	23.7	2	139.6	6	6.4	5	27.0	6	1.7	6	7.2	6
East Germany	78	99	90.9	9	30.4	2	83.1	2	4.4	1	15.0	9	112.1	9	4.0	8	26.7	7	0.8	8	5.3	8
Cuba	177	2	492.9	1	–	–	44.8	9	14.2	7	20.6	6	531.6	1	3.8	9	18.4	9	2.1	5	10.2	4
Mongolia	143	3	298.8	2	–	–	84.9	2	19.3	9	22.3	4	216.7	2	6.8	4	30.5	5	2.3	4	10.3	3
Poland	110	5	119.9	5	17.3	5	71.3	6	7.0	3	21.0	5		4	5.3	7	25.2	8	2.7	2	12.8	1
Rumania	81	8	119.1	6	10.8	7	78.5	4	13.0	6	17.3	8	159.2	5	9.6	3	55.5	1	1.2	7	6.9	7
The Soviet Union	197	1	116.0	7	21.2	1	56.9	8	14.1	8	31.1	1	133.3	7	13.1	1	42.1	3	3.0	1	9.6	5
Czechoslovakia	125	4	146.6	3	17.1	3	80.2	3	9.1	5	23.6	3	197.8	3	10.8	2	45.8	2	2.5	3	10.6	2

Ind. = index
D = Itemized distance from the highest index
The order of presentation of the countries according to their names in Russian
Source: *Statisticzeskij Jezegodnik Stran Czlenov SEW 1983*, izd. Statistika, Moscow, 1984. Computations by A. Buttler.

4. The Development of Higher Education in Poland in Comparison with the Group of European Region Countries. Among many myths circulating in Poland there is one that in comparison with many countries which enjoy a higher economic and social standard than Poland, Polish higher education has been excessively developed quantitatively. The evaluation of Poland's ranking in this area in 1977 among 28 European Region countries showed that Poland placed high (second) and steady both in 1965 and in 1977 in the feminization of the studies. In 1980 Poland dropped to the fourth place in the same group with 50.0 percent of women. This probably resulted from some restrictions imposed in Poland in the last few years on women's entering some branches of study which train for professions too physically demanding for women eg. veterinary medicine. The high degree of university-level education feminization, however, is still characteristic of the majority of socialist countries[9].

As for the dynamics of the increase in the number of students in the group of 28 European Region countries in 1977 (as compared with 1965), Poland ranked 21st, with the index of the number of students per 10,000 inhabitants — 10th and with the index of scholarization in the 20 - 24 age group — 21st. The analysis of the data for 1980, where an attempt was made to exclude the post-secondary education (level five), which is not included in higher education (in Poland — postlycée schools), has shown that Poland placed 16th as regards the index of the number of students per 10,000 inhabitants and 20th in the dynamics of the increase in the number of students (taking 1971 as the base). As for the number of graduates per 10,000 inhabitants in 1979 Poland ranked fifth and 12th in the dynamics of the increase in the number of graduates (1971 = 100).

Concerning the index of women among students, Poland was placed fourth, but scarcely 12th in the number of female students per 10,000 female inhabitants. The similar index i.e. the number of male students per 10,000 male

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[9] Comp. Table 2.

Table 2

Basic data on the development of higher education in 28 European countries[1] (sixth and seventh level according to the CITE classification) in 1980

	Country	Number of students per 10 000 inhabitants		Index of the number of students dynamics interease 1971 = = 100		Percentage of women in the overall number of students		Index of the number of students per 10 000 inhibatants in 20 - 24 age group	
		Ind.	D	Ind.	D	Ind.	D	Ind.	D
1	Austria	1687	8	167.5	7	39.4	20	23.9	14
2	Belgium	1175 (79)	17	151.5a	12	32.6a	25	25.2	13
3	Bulgaria	985	21	91.2	27	53.2	2	15.7	24
4	Canada	2492 (77)	2	144.1	13	49.8	5	36.0	3
5	Czechoslovakia	1287	15	153.8	11	42.0	17	17.1	21
6	Denmark	1618	9	168.3	6	41.3	18	28.6	7
7	Finland	1735	6	139.1	15	48.6	6	30.7	4
8	France	1462	11	112.6	25	sz.	13	25.5	12
9	East Germany	1853	5	203.6	3	60.9	1	30.4	6
10	West Germany	1729	7	222.5	11	36.7	24	27.6	8
11	Greece	884 (79)	24	119.0a	23	40.5a	19	16.9 (79)	23
12	Hungary	558	27	103.9	26	47.6	7	12.8	25
13	Ireland	1009	20	154.4	10	46.0	9	21.3	17
14	Israel	1440 (79)	12	120.1a	22	46.2a	8	26.3 (79)	10
15	Italy	1904	4	140.3	14	42.2	15	27.1	9
16	The Netherlands	1478	10	134.2	19	32.0	26	30.5	5
17	Norway	1089 (79)	18	155.0a	9	39.3a	22	25.6	11
18	Poland	1275	16	130.4	20	50.0	4	17.3	22
19	Portugal	856 (79)	26	185.8a	5	44.6a	12	11.3 (79)	25
20	Rumania	868	25	129.9	21	42.0	16	10.8	27
21	Spain	1333	14	209.8	2	42.5	14	23.2	15
22	Sweden	886 (79)	23	58.9a	28	38.6a	23	36.9	2
23	Switzerland	949	22	135.5	18	32.0	27	17.9	20
24	Turkey	516 (78)	28	136.2	16	26.2a	28	5.3	28
25	The Soviet Union	1972	3	113.9	24	52.0	3	21.2	18
26	Great Britain	1059	19	197.5	4	39.4	21	20.1	19
27	The USA	4617 (76)	1	135.5	17	44.5a	1	57.1	1
28	Yugoslavia	1389	13	159.9	8	45.9	10	21.7	16

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[1] In compliannce with the UNESCO classification the region of Europe also covers Canada, Israel and the USA.

Ind. = Index
D = Itemized distance from the highest index
E = Estimation
Numbers in parantheses mark the year for which the index was given.

inhabitants placed Poland 20th in the group of 28 European countries [10].

The scholarization index for 1980, including the ratio of the number of students per 10,000 inhabitants aged 20 - 24, ranked Poland 22nd in the group of 28 European Region countries. However, the previously mentioned remark concerning statistical data given by some countries, which cover only higher education (the Soviet Union, Czechoslovakia, Rumania) also applies to the last index which, like in many other countries, refers to the whole third level of education. Hence, one should suppose that actually Poland places slightly lower in the table if one takes into consideration the index of scholarization on the higher education level [11].

While using the additional information contained in UNESCO materials to compare the types and forms of the postsecondary education in Poland with those in other European Region countries, one comes to a conclusion that in its number of people trained on subsequent levels, it substantially differs from educational structures in capitalist countries. In 1977 in Poland, 21.1 percent of the total number of those continuing their education after graduating from secondary school were trained on the fifth level, 14.7 percent on the sixth level (vocational studies leading to the first-degree diploma) and as many as 64.2 percent on the seventh level — full university education leading to the master's degree. As for the percentage of the number of students on the seventh level, Poland was among the top European countries. This proportion remained almost unchanged in the system of Polish education in 1982. On the fifth level (postsecondary schools) there were 23.0 percent of students of the total number of people undergoing training after graduation from a secondary school; on the sixth level (higher education courses leading to the first-degree diploma) — 12.8 percent and there were 64.2 percent of intramural students working for the master's degree. The data for Poland of 1984 indicated that the situation was changing in favor of the fifth-level graduates who accounted for 37.2 percent of all students in that year and was deteriorating for vocational study graduates (10.4 percent) and those working for the master's degree (52.4 percent)[12]. It is too early, however, to assess the reasons and effects of the phenomenon, but the trend change in Poland in this sphere merits attention since, on the average, in European Region countries in 1978 the majority of students were educated on the sixth level leading to a professional diploma. If one takes into account the fact that during an unfavorable economic situation in various countries the postulate of the study length diversification is often brought up in order to offer different types of education in terms of content and cost — the problem is worth consideration.

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[10] *See Perspektywy kształcenia w szkolnictwie wyższym.* J. Kluczyński ed. Warszawa—Kraków 1985, PWN, Table V, p. 118.

[11] Statistical data submitted to UNESCO on Poland also cover the whole third level of education (i.e. including postlycée schools). The division of these data into the fifth, sixth and seventh level helps in most cases to exclude the lower levels of education, below higher education what has been done in this paper except the scholarization index.

Although it seems, from the point of logic, that the structure of education in accordance with the branches of study should be one of the most changeable elements in higher education, particularly in the countries which include into the process of planning the economy's demand for qualified personnel, nevertheless, one can find something quite contrary on the basis of long-term statistical data. So the conclusion is that neither the market mechanism in capitalist countries nor the planned system of management can signal changes well ahead of time, changes which will result from the development of science and technology in the material and nonmaterial sphere and which will lead to occupations and specializations. Now following the available statistical data, one can indicate by way of example that the structures of education according to the branches of study are basically different between the group of the socialist and capitalist countries. While in the former there are more students concerned with the first (mining) and the second (manufacturing) spheres of the economy, in the group of capitalist countries the majority of students are trained in the branches of study dealing with the sphere of services.

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[12] See *Rocznik Statystyczny GUS*. Warszawa 1985, Table 23/691, p. 459 and Table 29/697, p. 464.

4. *Final Remarks*. The comparisons show that in both groups of the states i.e. the group of (9) socialist states and the group of (28) European Region countries, Poland has not ranked high in the university-level education in the 1980s. Except for the index of feminization of studies, it placed rather in the middle or below in the table. This has also been proved by the statistical data concerning eg. the index of scholarization on the third level of education in the 20 - 24 age group, which as early as in 1977 in four countries of the European Region exceeded 30 percent and in 16 countries — 20 percent. In 1980 in the same group of the states, the same index exceeded 30 percent in six countries and 20 percent in 19 countries [13].

For the same level of education in Poland in 1980, it was 17.8 percent and 15.1 percent in 1982 [14]. The index of scholarization on the level of higher education was 12.0 percent in 1982 [15]. The attempt to compare Poland's position in terms of the development of the educational standard and the economy of other European countries showed that in 1976 Poland placed higher in the group of 28 European Region countries as regards the index of GNP (17) than as regards the index of scholarization in the 20 - 24 age group (19) [16]. In 1980 in the same group of the countries, the index of GNP [17] per one inhabitant placed Poland 24th while the index of scholarization in the 20 - 24 age group on the third level of education — 22nd.

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[13] *Comp. Higher Education and Economic Development in Europe 1975 - 1980*. Vol. I, Cepes UNESCO, Bucharest, Table 20, p. 98.

[14] *Computed on the basis of the data from Rocznik Statystyczny GUS*. Warszawa 1980, Table 20/607, p. 405 and Table 23/610, p. 408 and 1982, Table 20/643, p. 407 and Table 23/646, p. 409.

[15] *Computed on the basis of the data from Rocznik Statystyczny GUS*. Warszawa 1985, Table 28/696, p. 463 and Table 23/691, p. 459.

[16] T. Obrębski, H. Jabłońska-Skinder: *Poziom skolaryzacji a wzrost gospodarczy Polski na tle porównań międzynarodowych. Planowanie Kadr*. Part 11, PWN, Warszawa—Łódź 1982, pp. 3 - 16.

[17] *Computed on the basis of the data from Higher Education and Economic Development in Europe 1975 - 1980*. Vol. L, Cepes UNESCO, Bucharest 1983, Table 9, p. 41 .

These and the previous comparison results show that, contrary to some circulating opinions, Poland does not enjoy the highest indices of education on the third level or in higher education. This does not necessarily mean that in order to increase the indices, the number of students in higher education has to be increased regardless of the prevailing conditions.

The unfavorable economic situation which Poland is now facing, which also applies to many other countries throughout the world, makes specialists dealing with the development of education, higher education inclued, answer the question concerning the volume and rate of growth of higher education. It seems that beside international comparison findings, also a close watch for solutions applied by other countries under similar circumstances would help to find an answer to that question.

Х. ЯБЛОНСКА-СКИНДЕР

Высшее образование в Польше на фоне других стран мира

Цель статьи заключается в том, чтобы оценить развитие высшего образования в Польше в сравнении с группой социалистических стран, а также с группой европейских стран. Для такого сравнительного анализа введены, в некоторой степени, элементы качественных сравнений, которые надо трактовать как ориентировочные, принимая во внимание разницы в системах образования. Сравнения в области уровней обучения касаются, в основном, количества студентов.

Статья носит информационно-статистический характер, с некоторыми более общими выводами сравнительного типа. Этого рода материалы могут очень пригодиться исследователям занимающимся проблемами образования, политикам и работникам просвещения.

H. JABŁOŃSKA-SKINDER

La enseñanza superior en Polonia en comparación con otros países del mundo

El objetivo del artículo en cuestión es la valoración del desarrollo de la educación y la enseñanza superior en Polonia en relación con el nivel de ésta en el grupo de los países socialistas y el así llamado grupo de „los países de la región de Europa". Dichas comparaciones abarcan en cierto grado elementos de aspecto cualitativo que, tomando en consideración las diferencias existentes en los distintos sistemas de educación, deben ser considerados como orientadores. Las comparaciones concernientes al nivel de la enseñanza se refieren, ante todo, al número de estudiantes.

El artículo es de carácter estadístico e informativo y presenta algunas conclusiones generales de tipo comparativo. Así pues, dado su carácter, es una bibliografía muy útil para los investigadores de los problemas de la educación, los políticos y los que se ocupan de la enseñanza.

JABŁOŃSKA-SKINDER, Assistant Professor of the Institute of Science Policy, Technological Progress and Higher Education, member and Polish envoy to UNESCO's Centre Européen Pour l'Enseignement Supérieur (CEPES) in Bucharest, First Vice-President of the Bureau of the Regional Committee for Implementation of the UNESCO Convention on Keeping Records of Faculties, Diplomas and Degrees in the Higher Education of the European Region Countries.

Życie Szkoły Wyższej 1986

Higher Education Network in Poland

by

JAN BORZYMOWSKI

Higher education in Poland has gone through various historic upheavals; it was always the nation's refuge and confidant in its resistance to invaders. Though often persecuted and destroyed, it was always reborn. Such was also the case in 1945. The authorities of the Polish state which was being brought back to life in a new reality gave priority to the revival of higher education.

Despite the very old traditions [1], the present dimension and spatial arrangement of higher education is connected with its activity and development in People's Poland. The changes which occured in the past four decades were expressed not only by the rapidly growing number of students and graduates, university teachers, school buildings and back-up facilities, but also by the development and diversification of the elements of spatial arrangement, i.e. higher education centres, the number of institutions of higher learning, branches, subordinate faculties and consultation centres.

These changes have not alway been co-ordinated, which triggered various kinds of perturbations and distortions of the proper proportions of the development of particular elements of higher education, such as the number of students, the number of research workers and university teachers, the necessary infrastructure, the laboratory and technological equipment or the social base.

Before we discuss the wide range of problems involved in the development of higher education, particularly its network, let us have a look at the point of departure — the conditions of academic work after the Second World War. Apart from proper infrastructure, the basic condition on which higher education depends is the numerical force of the academic faculty. In the academic year 1937/38 there were 4403 university teachers (including 907 professors). The casualties suffered as a result of World War II have been estimated at about 70 per cent of the prewar state. Right after the war, institutions of higher learning had at their disposal 3863 research workers and teachers [1]. This group included a large number of persons who "held lectures and did part-time teaching (29 per cent). They were often practicioners — engineers or high school teachers with excellent qualifications. Solving faculty problems by means of "part-time arrangements" was very characteristic of that period and proved that in the times which were hard not only for Polish education, all possible measures that led to overcoming the existing difficulties were resorted to. The largely destroyed economy expected institution of higher education to quickly provide highly qualified staff. That was the major reason for all the changes and for the development of higher education. Despite the tremendous difficulties, in the academic year 1945/46 there operated 46 institutions of higher education (including 16 art schools) in 14 cities and towns.

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[1] The Jagiellonian University in Cracov was foundal in 1364.

It should be emphasized that institutions of higher learning were opened in the Regained Territories in Wrocław, Gdańsk, then in Szczecin which had never been an academic centre.

The table shows that in the academic year 1945/46, six new academic centres were created: Toruń (which took over the faculty of Stefan Batory's University in Vilnius), Gdynia, Sopot, Gliwice, Cieszyn, Częstochowa. The reactivated Wrocław centre, despite certain privileges, such as taking over the remaining faculty from Lvov, should also be considered an entirely new institution.

In those days, the total number of institutions of higher

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[1] According to: *Statystyka szkolnictwa w latach szkolnych 1945/46 i 1946/47*. GUS, Warszawa 1948 (*Educational Statistics in the School Years 1945/46 and 1946/47*).

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education was much bigger than before the year 1939. This proves how great importance was attached to higher education from the first moments of the rebuilding of the country. One of the problems which had to be solved after 1945 was the organization and planning of education in the entirely new political situation.

The problem was rather complicated because of the absence of a definite socialist model of higher education. There were no organization patterns that might answer the requirements of the new reality.

Also, the great social and particularly economic constraint resulted in a constant search for ways and means, in order to satisfy the excessive — in comparison with the contemporary possibilities of higher education — expectations. Those steps consisted inter alia, in changing academic faculties and branches into separate units, closing schools or making them faculties of other schools of higher education, and creating such forms of studies which could be quickly developed without additional spending on back-up facilities.

The 1965 - 75 decade was symptomatic of the development of Polish higher education alongside the rapidly increasing need for highly-qualified specialists, demographic explosion and consequently, an increased influx of young people to institutions of higher education. There surfaced great disproportions between the demanding tasks in the sphere of education and the possibilities of their implementation which shortly worsened conditions of work in all forms of scholastic activities. It is obvious that the preparation of adequate academic faculties and material resources requires large expenditures and much time. But the accumulation of educational tasks was not coupled with a proportional increase in the means and executive potentialities of their proper implementation. This issue was very noticeable, particularly in the newly created centres.

A positive aspect of the substantial expansion of the education network was the increased accessibility of certain, particularly technological, lines of study. Typical examples of creating new institutions despite the lack of funds were engineering colleges (e.g. in Białystok, Rzeszów, Zielona Góra).

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Table 2

Basic data concerning the development of higher education in Poland in the years 1937 - 1985[1]
(in thous.)

City or Town		Schools							Students					
		1937/38	1945/46	1960/61	1970/71	1980/81	1984/85	1985/86	1937/38	1945/46	1960/61	1970/71	1980/81	1984/85
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Total		29	46	76	85	91	91	92	41.450	55.998[3]	165.6	330.8	453.7	349.8
1.	Warsaw	13	11	14	12	13	13	13	20984	11022	44.4	63.2	75.0	61.2
2.	Kraków	4	8	11	11	11	11	11	7500	13914	24.5	50.3	60.9	45.6
3.	Poznań	4	5	8	8	8	8	8	6092	7961	17.5	35.0	41.5	31.1
4.	Wrocław	2•	2	8	8	8	8	8	2940	2853	17.8	34.6	42.7	31.6
5.	Gdańsk	2[2]•	2+2	6[4]	6	6	6	6	1432	2161	12.6	22.0	26.0	22.4
6.	Gdynia	–	1	1	1	1	1	1	–	391	–	0.6	2.2	1.8
7.	Łódź	1	7	7	6	6	6	6	523	6699	12.5	24.2	30.9	23.1
8.	Lublin	1	3	5	5	5	5	5	1377	3280	7.7	20.5	31.8	27.0
9.	Katowice	2	2	4	5	5	5	5	602	650	6.8	13.7	28.1	22.3
10.	Gliwice	–	1	1	1	1	1	1	–	2248	7.8	16.9	15.8	8.9
11.	Szczecin	–	–	3[6]	4	5	5	5	–	–	4.8	10.0	16.5	12.6
12.	Bydgoszcz	–	–	1	2	3	3	4	–	–	0.3	4.1	11.1	7.4
13.	Toruń	–	1	1	1	1	1	1	–	1380	2.4	5.0	8.3	7.0
14.	Białystok	–	–	2[6]	2	2	2	2	–	–	1.8	3.9	5.4	4.2
15.	Kielce	–	–	1	2	2	2	2	–	–	0.3	4.9	7.2	6.1
16.	Radom	–	–	x[5]	x[5]	1	1	1	–	–	x[5]	–	3.1	1.7

17. Olsztyn	–	–	1[6]	2	2	2	2	–	–	1.8	5.6	12.6	8.9
18. Opole	–	–	1	2	2	2	2	–	–	1.8	4.9	6.6	6.0
19. Rzeszów	–	–	–	2[7]	2	2	2	–	–	–	4.8	7.6	6.0
20. Zielona Góra	–	–	–	1[7]	2	2	2	2	–	–	1.5	5.6	4.3
21. Częstochowa	–	1	1	1	2	2	2	–	145	0.9	3.5	6.3	4.7
22. Słupsk	–	–	–	1	1	1	1	–	–	–	0.5	2.6	2.5
23. Siedlce	–	–	–	1	1	1	1	–	–	–	0.4	2.0	1.9
24. Koszalin	–	–	–	1	1	1	1	–	–	–	0.7	2.7	1.1
25. Cieszyn	–	1	–	–	–	–	–	–	167	–	–	–	–
							out of which:						
Branches, subordinate faculties and chapters	–	–	–	15	26	29		–	–	–	11.0	11.7	18.3
Consultation centres	–	–	–	103	131	53		–	–	–	15.1	18.2	2.8

[1] Within the present boundaries.

[2] 1935/36.

[3] Including the Cieszyn branch.

[4] Including Sopot (2 schools).

Numbers for those cities which did not belong to Poland in the 1937/38 academic year have been taken from the Statistisches Jahrbuch fur das Deutsche Reich for 1938.

[5] College of Engineering in Random whose stastistics have been included in the Kielce data; in the academic year 1965/66 the school became part of College of Engineering in Kielce.

[6] since 1950.

[7] since 1965

of higher education by means of transforming the already existing strong branches.

The third group consists of nine towns which mostly have teachers colleges which serve the needs of the regions. Their further development is likely to depend on the local socio-economic needs of the macroregion and each school's staff and available back-up facilities.

The great development of the education network has resulted in greater accessibility of academic specializations. At present, in each macroregion there are opportunities to enroll in at least five types of institutions of higher education: technological, economic, teachers, medical and universities.

The fourth group of higher education centres includes 15 towns and cities in which academic work is conducted only in local branches, faculties or chapters — i.e. units which are not independent. The big increase (notably in the seventies) in the number of small, and consequently weak, centres of higher education, at present constitutes a problem for planners and decision-makers in the development of the social infrastructure. The basic difficulty lies in the selection of criteria which would enable an optimum verification of the existing units of the education network.

The proposed principle of a unified quantitative criterion[5] makes it possible to assess the performance of particular education units and serves to identify the most inefficient ones as well as to describe the evolution of the structure of education in a region and the local demand for specialists.

On the one hand the goal is to maintain the status of institutions of higher learning and to accomodate the structure and size of education to the needs and possibilities of the country's economy, and on the other hand, there is the social pressure and the demand for education, which should be satisfied in the best possible way.

The present policy of building a network of institutions of higher education in Poland aims at concentrating education in the leading schools by means of suspending or closing down certain departaments and specializations which do not have enough independent research teachers staff (6 and 3 respectively), and reducing the number of small subordinate chapters which in most cases did not guarantee a proper level of studies or scientific and research work since they lacked their own staff and proper (technical and laboratory) back-up facilities.

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[5] The quality of the staff, the material infrastructure, the quality of the pursued research projects. The number of candidates' applications. Availability of employment for the graduates from certain departments in a given region, etc.

For these reasons, the academic centres, inter alia, in Elbląg, Jelenia Góra (Teachers College), Racibórz, Tarnów, etc. are now being closed down. The verification has covered all of the country's institutions of higher education. Consequently, in the year 1983/84, enrolment has been suspended in 55 departaments and 54 specializations in all types of institutions of higher education in Poland (submitted to the Ministry of Science, Higher Education and Technology).

Thus the strengthening of the crucial links of the network of higher education aims at improving the conditions in which the existing independent institutions have been functioning.

If we assume that a group of independent research workes and university teachers make major decisions about the development of research work in institutions of higher education and, consequently, about the information passed on to students, we may as well conclude that in the present Polish state of teaching techniques, the quantitative growth of this group is one of the basic (beside the infrastructure) determinants of the development of the whole of higher education.

Today's necessary changes in the spatial arrangement of higher education centres, as well as the considerable material and social costs, result from arbitrary decisions and the absence of a co-ordinated programme of development of the higher education network in the past decades.

Institutions of higher education operate in this country's concrete economic and social reality. Space is the factor which should be taken account of in all reflections on this subject.

In their considerations, classical economists paid no attention to the problem of space. In the eighteenth century

Польше. Изменения, которые происходили в минувшем 40-летии, проявились не только в быстро увеличивающемся числе учащихся вузов, их выпускников и вузовских преподавателей, в увеличении строительного имущества и оборудования высших школ, но также в развитии и неоднородности элементов пространственной структуры, т.е. центров высшего образования, количества высших школ, филиалов, иногородних факультетов и консультационных пунктов. Вышеупомянутые изменения не всегда происходили координированным образом, что влекло за собой разные пертурбации и искажения соотвествующих пропорций развития отдельных элементов системы высшего образования.

Основным мотивом всех перемен и развития вузовского обучения, особенно в первые годы после второй мировой войны, была насущная потребность в квалифицированных кадрах, которых требовала возрождающаяся экономика страны. В результате наступило значительное расширение сети вузовских центров. Положительным фактом было несомненно то, что стали доступными в гораздо большей степени некоторые вузовские специальности, особенно технические. В настоящее время в каждом макрорайоне существуют возможности учёбы не менее, чем в пяти учебных заведениях: технических, университетских, экономических, педагогических, медицинских.

Среди 36 городов, в которых имеются вузы, 7 городов, т.е. Варшава, Краков, Познань, Гданьск, Катовицы, Вроцлав, Лодзь, обеспечивают полный профиль обучения. Именно эти вузовские центры исполняют осовную роль в деле обучения студентов, совершенствования кадров с высшим образованием, а также подготовки научных кадров.

Кроме 7 упомянутых крупнейших центров всепольского значения, есть еще 5 центров макрорайонного значения.

К третьей группе относятся 9 городов, в которых имеются, в основном, педагогические и технические вузы, обслуживающие район.

Кроме всех вышеупомянутых городов, в 15 городах Польши созданы филиалы или факультеты и отделения, которые не являются самостоятельным представительством вузовской деятельности. В настоящее время эти,

небольшие и силою вещей, довольно слабые центры высшего образования подвергаются верификации и представляют проблему для плановиков и ответственных работников в области развития общественной инфраструктуры.

Эти насущные потребности стали причиной исследований действующих механизмов в сфере пространственной структуры вузов, а также поисков оптимальных решений в деле размещения и формирования структуры вузовских центров.

J. Borzymowski

La red de enseñanza superior en Polonia

A pesar de una muy larga tradición, el estado actual y el aspecto del sistema espacial de la enseñanza superior está estrachamente relacionado con la actividad y desarrollo de la Polonia Popular. Los cambios efectuados en el cuarentenario pasado se expresaban no sólo por el número creciente de estudiantes y graduados, profesores académicos, aumento del número de construcciones y el equipamiento de los centros de enseñanza superior, sino también por el desarrollo y la diversificación de los elementos del sistema espacial, es decir de los centros de enseñanza superior, número de escuelas superiores, filiales, facultades regionales y puntos de consulta. Los cambios mencionados no siempre eran efectuados de manera coordinada, lo que ha ocasionado vario tipo de peturbaciones y errores concernientes a las adecuadas proporciones del desarrollo de los respectivos elementos de la enseñanza superior. El motivo principal de todo tipo de cambios y del desarrollo de la enseñanza académica fue ante todo en los años inmediatos a la segunda guerra mundial, la demanda de personal calificado, necesitado por la economía del país en reconstrucción. En consecuencia ha tenido lugar un considerable desarrollo de la red de centros académicos. La ventaja más importante de este hecho fue el acceso faci-

In my opinion the scattering of science among institutions of higher learning, the Polish Academy of Sciences and ministerial institutes substantially weakened higher education. The development of nonuniversity institutions of higher education dispersed the personnel and means, increased costs and diminished effects. This has been going on till today with the above-mentioned results.

In the triangle: ministerial institutes and research facilities, institutes of the Polish Academy of Sciences and institutions of higher learning the latter is the weakest side and that adversely affects the accomplishment of multiple university tasks. Under these circumstances the influence of higher education on the social and economic development is neither edequate to its possibilities nor its needs.

— The social and economic development strategy makes higher education face definite tasks — the challenges of the end of the 20th century.

Professor A. R.: — The challenges of the end of the 20th century are not the callendar challenges, but the result of the assessment of the rate of growth of civilization in the contemporary world and our multifarious backwardness or stagnation. Let me return to the view presented at the beginning of the interview: the essential factor of economic growth and social and technological advancement acceleration rests with higher education. As I see it, the priority should be given to the qualitative improvement of those undergoing training since they should be the yeast of the development. And the quality depends not only on university teachers' personality, but also on the equipment and research potential of institutions of higher learning. So the modern character and the quality of university work can substantially influence the strategic concepts of the social and economic development and their implementation. And fundamental changes should be made in the idea of education particularly in the specialities training teachers, engineers and economists. It makes your hair stand on end when you see that education problems are reduced to balance-sheet values, statute and organization matters and routine corrections of plans and curricula, full of personal compromises. Such actions will never produce any breakthrough in the higher education operation and its role in promoting values conducive to the social and economic development.

— Professor, could you give your opinion on the employment of university graduates, saturated or limited skilled labor market, opportunities and obstacles to the rational employment of university graduates, organization of work, meeting of professional aspirations and a co-operation of higher education with state enterprises?

Professor A. R.: — I was dealing with the employment of university graduates in the 1960s. Then in the Institute of Research on Higher Education we came up with a number of propositions concerning the preparation of students for their future professional work and their position after graduation. These proposals still hold good.

There is no clear-cut answer to the question whether the skilled labor market is saturated or limited. Undoubtedly there is a common gap between the quantity and quality of personnel especially when it comes to engineers. Besides, there are substantial shortages in meeting standard needs in some professions, particularly in the teaching profession. At the same time we show helplessness in seeking ways to provide an influx of adequately gifted people to this profession. This profession should get preferential treatment and the process of its selection should begin in the secondary school. In general, the choice of the field of study should be accompanied by an increased active orientation and professional councelling.

As for the surplus or shortage of university graduates on the labor market, my approach is different from that of planners and statisticians, namely I look at if from the point of view of proportions between the quality potential of those teaching and those being taught. A well-trained graduate with an active and creative attitude will always find a job or the job will find him or her; he or she will also manage to meet his or her aspirations. But this attitude should be developed during the higher education process carried out by people of such knowledge and personality that can effectively mold young people under training. Mediocre teachers only multiply mediocrity among their students. Thus the main problem of higher education is a qualitative selection of university teachers and just proportions between the teachers and the students. The selection is necessary for both groups and this should be built into the so-called professional risk of the university teacher and student. There is no point in pushing mediocre students to the master's degree stage.

As for the employment of university graduates, the problem has gathered a lot of myths. A well-trained graduate with a good motivation to work hard has no problems with job selection. The atmosphere of labor market congestion for graduates is usually created by those who are not eager to take a job in state enterprises.

Anyway, there are enough jobs for all graduates and if the jobs just happen to be in short supply in a given profession, various opportunities are offered to gain additional qualifications.

The second much more essential problem of the graduate employment policy is the adjustment process in the workplace. And here we have really been facing some alarming phenomena largely resulting from the state of our organization and management. A question may be asked here, however, whether graduates themselves should not try to build their own roads leading to professional life and to the fulfillment of their career aspirations. This is also an area where the institution of higher learning and the enterprise can do a lot, for instance in the organization of practical training, selection of theses, sponsors etc.

Let me close by saying that the contemporary problems of university graduates cannot be reduced to the labor market. On the one hand, they are linked with the idea and quality of their training and on the other hand — with the real co-operation between the institution of higher learning and the enterprise.

— Professor, I feel that you could not exhaust here the problems concerned with higher education and its relationships with the social and economic development of the country. We will consider this interview as a leaven for further discussions on higher education and its role in the creation of the atmosphere of good hard work, good

education, good organization of research, all in all, its influence on the future tasks and perspectives of the country's social and economic development.

Thank you very much indeed.

The interview was carried out by
Mrs Maria Przywara

Прежде всего качество, т.е. высшее образование в общественно-экономическом развитии Польши (опасения и надежды). Разговор с проф. Антонием Райкевичем — директором института труда и социальных проблем

В разговоре с проф. А. Райкевичем была затронута тема связей высшего образования с современным общественно-экономическим развитием, а также проблема поисков решений относительно более высокого качества выпускников вузов.

Проф. Райкевич подчеркивает: „... Требования, возникшие в конце XX века не связаны с календарем. Они проистекают из оценки темпа цивилизационного развития в современном мире и нашей многосторонней отсталости и застоя ...” Далее проф. Райкевич указывает также на задачи относительно качества обучения в вузах и необходимость приготовления молодёжи, уже на уровне среднего образования, к исполнению их будущей профессии. Проф. Райкевич обращает внимание на следующую важную проблему, которая заключается в возможностях ведения научно-исследовательских работ в вузах, а также в их сотрудничестве с предприятиями народного хозяйства.

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„La calidad es lo que más importa", o sea, la enseñanza superior en el desarrollo socio-económico de Polonia, temores y esperanzas (Entrevista con el profesor Antoni Rajkiewicz, director del Instituto del Trabajo y los Asuntos Sociales)

En la conversación con el profesor Rajkiewicz fue tratado el tema de la relación existente entre la educación superior y el moderno desarrollo socio-económico, como también el de la búsqueda de solución al problema de una mejor calidad de los graduados de los centros de enseñanza superior.

El profesor Rajkiewicz subraya el hecho de que: „... los retos de los finales del siglo XX no son retos que se desprenden del calendario, sino más bien de la valoración del ritmo del desarrollo de la civilización en el mundo y nuestro multilateral atraso o estancamiento..." El profesor deslinda también los objetivos de la calidad de instrucción en las escuelas superiores y señala la necesidad de preparar a los jóvenes a la tarea del trabajo profesional ya a nivel de la enseñanza media. Otro problema importante que se desprende de la conversación en cuestión es el tema de la posibilidad de realizar los trabajos de investigación en las escuelas superiores, como también la cooperación de éstas con las empresas de la economía nacional.

RAJKIEWICZ Antoni, Marian, Professor of Warsaw University, economist, expert in social policies, ex-Minister for Employment, Pay and Welfare Problems, member of the PAS Committee for Problems of Employment and Welfare Policies, member of the Presidium of the PAS Committee for Research and Inquiries, "Poland 2000", editor-in-chief of the monthly "Polityka Społeczna" (Social Policy).

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On Vocation of the Academic Teacher

by

JULIAN ALEKSANDROWICZ

Many a time have I found myself in the circumstances which made me reflect on the ideal of the academic teacher, meaning his desirable characteristics, intellectual qualities and merits found in the realm of human character. I asked myself such questions while searching for masters guides to show me the way through knowledge and life in general, the experience filled with hopes and disillusionment, enchanting realizations and bitter disappointments. Years passed and I found myself on the other side, now being a teacher liked and valued by some, who would give me to understand that in a variety of ways, and, I am pretty sure, regarded as a disappointment by others. I have also looked into the theory of the problem under discussion. The remarks that follow this introduction are intended to combine the afore-mentioned approaches.

I. Teacher's personality. We want to see it in every teacher, not just an academic teacher. A teacher must be a man of sound, mature personality. This is a truism of course. And every teacher believes he has got such a personality, which obviously is nonsense. Each of us knows it very well from his own experience of school and university years that majority rather than minority of our teachers were dull, unimaginative, rattling their duties off, never successful in earning their students' respect differently than through the use of the advantage of their status in the relationship with students. Had it been differently and had an overwhelming majority of teacher showed the desirable characteristics, the world would certainly be better than it is.

They say: like father like son, like teacher like his pupils. They say these things and believe that statistics provide evidence legitimizing the saying which could be true when a teacher is unimaginative, dull person of immature and generally uncreative personality, though one could fear that things could even be worse than that in such cases. An unimaginative and dull teacher showing signs of absence of mature personality is often inclined not only to mould his pupils' mentalities to his own image, but also frequently betrays a determination to make the mentalities even poorer than his own. For it is only individuals with such mental and emotional features that he is able to control, as the element of power and struggle for it is also found in the teacher-student relationship and acquisition of knowledge, the fact that is seldom pointed out to by pedagogy. This is an embarrassing aspect of education, which occurs when a teacher lacks mature personality.

There are eminent experts who, for characterological reasons provide poor or simply bad performance as teachers. Every teacher realizes that by transmitting experience, knowledge and abilities to his students he acts against himself in a way.

When he succeeds in conveying to a student much younger than himself the best of his experience that has taken him the whole of his life to acquire, he may be quite certain that he might soon be eclipsed by the rival if the learner happens to be talented enough. For progress is only possible when students outdo their masters.

It is the responsibility of all teachers to promote advancement. Their attitudes should therefore be marked by determination to create and not just to imitate, the latter being in line with the policy they may have taken over from their teachers or from inflexible and obsolete codes of behaviour, which could, especially in medicine, hold back progress, a vital aspect of prevention. It should therefore be their civic responsibility to pursue such a model of education that could produce students who might surpass them. This could even be seen as a tragic aspect of the job or vocation as we tend to term it. But it rather appears to be an aspect of a different broader human objectivity, that some call the ordeal of existence, or simply ordeal of life. A teacher of mature personality finds this understandable and obvious, though not necessarily easy and simple.

In my view, a teacher should do his best to educate his rivals rather than successors, which for all the appearances of high likelihood, need not be a "suicidal" policy. On the contrary, if a teacher actually succeeds in developing determination to apply it, he may be confronted with the magnificent opportunities involved in competing with the student who might outclass him.

Just as a teacher may improve his students and urge on them to do better, they too could affect his performance, which, however, is a rare case. The academic teacher who has trained a graduate that might well be called his master's match and "rival" can in most cases also prove to be more productive as a researcher than a colleague watchful to prevent what he sees as his students' untimely maturing and emancipation. I would even take the risk of advancing the claim, for as they say, good is inseparable from evil, that compliance with the policy in question represents a pre-condition of success in the teacher's — researcher's pursuit of the state of maximum creative capacities.

It is no secret of course that such full teacher's personalities are not very numerous in our environments. Besides all of us can look around and see how the process of "students' emancipation" progresses under different "masters" — professors. One thing seems to be certain: quite a lot of us might find reasons to feel embarrassed and confused having taken a close look at his or her conscience. Though one could, of course ask a re-assuring question "Aren't we human beings, after all, and it is quite natural that sometimes we let our weaknesses take over". This question, however, brings us to another realm of problems: moral questions.

II. Teacher's ethics. I believe that it is rather pointless to try identifying a separate ethics of a teacher versus that of a researcher. There is one all-human ethics whose essentials could be brought down to a common denominator, being the "principal commandments" of the major religions, or mature philosophical systems. Thus if we were to reflect on an ethics of the academic teacher and not simply on the ethics of a human being, the only excuse could be the belief that a teacher can hardly content himself with compliance with the "natural ethics" (for instance disapproving of acts aimed against human health and life solely because he has been taught the commandement: thou shalt not kill).

He should therefore have what I would describe as "ethical consciousness", meaning that he should in the said situation realy not only on a set of typical reasons against murder or harm to human health but also on his own original ideas on how to materialize the principle of biological and social equality.

Those who teach others are expected to show determination and energy in the pursuit of explanations of the basic questions regarding the sense of living and reasons for adherence to humane and humanitarian attitudes. For inadmissible is the situation in which a teacher's attitude toward humanism is either unconscious or dependent upon the current doctrines, trends and relationships in which he is engaged. This could by no means be termed ethical consciousness.

Those who are just as old as myself and remember the effects of the Hitlerjugend rearing of young people need no explanation on the consequences of unethical education or that based on a pseudo-ethics, akwardly derived from an ideological doctrine.

Ethics must never be confused with propaganda serving the needs of the moment. And it is the teacher who should be particularly sensitive in this respect. I am placing such a strong emphasis on this question as it is another issue where teachers' performance usually falls short of the desirable ideal.

You can hardly call one's behaviour ethical if he fails to show a sense of responsibility for the lot of others, or even its minimum: determination to avoid acts likely to do harm to our neighbours. Thus we cannot call a farmer's behaviour ethical if he does not care about liquid manure running down to his neighbour's enclosures, the possible effects being: contamination of water in the neighbour's well and increased risk of stomach cancer consequent upon consumption of the water (a real endimicity in the rural areas in Poland).

Nor is ethical the director of a plant who argues that it pays to pay fines for contamination caused by polluting a river with industrial waste or deactivating chimney filters at night, for the extra profit earned by the production obtained at the cost of damaging the environment far exceeds the size of the penal sanction (the practice very frequent in this country).

On the other hand, however, it must be noted at this point that both the farmer and the director did have their teachers once who, whether they like it or not, are to be held partly responsible for their former students' behaviour.

I have had such students myself, feel ashamed of them, and often ask myself where my mistake lay, what kind of evil in my behaviour made my students stick to the policy of ethical relativism, a modern version of the original sin, that has been following us ever since we can remember

The teacher, especially the academic teacher, for it is him who educates future decision-makers, doctors, scholars etc. should be a person showing a maximum of ethical consciousness. He should therefore, especially this time and day show a sense of responsibility not just for his discipline, his university, his students, his nation, but what one could call even at the risk of being criticized for using bombastic rhetoric, the whole of mankind.

The present day world as described by systemic philosophy represents a very complicated objectivity, in which not only its constituents, i.e. people whose characteristics are descriptable, but also their properties and relationships between them interact through variety of linkages. It is the linkages that determine the degree of functional equilibrium or homeostasis.

That is why more and more obsolete are becoming various divisions into closed specializations in science, antagonistic blocks in politics, the so-called first, second and third worlds in economics, unless the specializations, blocs or worlds are referred to as sub-systems of one big system, i.e. mankind. This can best be observed when we look into circulation of poisonous substances in nature, radioactive particles, smogs, DDT etc. These ignore natural boundries and state frontiers, and in the long run, when we look at the long-term effects there are no local ecological damages, as all of them somehow affect the dynamic equilibrium of the entire system, i.e. the homeostasis.

Awaraness of this fact is not universal yet, especially as far as practical medicine is concerned. It will, however, come sometime in the future, as it is provided for by the Hippocrates' environmental determinism: the ecologism or there will be no future at all.

As performance provided by the present-day teachers is an important determinant of the future, their moral responsibility for the world and mankind appears to be the greatest ever. To meet the responsibility might in some cases require a heroism. But a responsible academic teacher these days has no choice if he is truly dedicated to the cause of a better future, for to serve the cause means to serve the cause of survival.

I doubt the likelihood of emergence of a modern version of the Noe experiment: construction of an ark that would give the chosen good people a chance to survive. There is no other way to weather the flood of our own doing, the consequence of uncontrolled, rapid growth of the population, technological advancement, destruction of the biosphere, this last thing meaning in fact destruction of ourselves, but to close the ranks in the pursuit of salvation. The alternative: mutual destruction, the idea that could only occur to a diseased brain, poisoned by alcohol and toxins such as lead, fluorine, DDT etc., or deficiency of antioxidizing mineral components and vitamins.

Responsibility for the whole has become in our times a measure of the teacher's, especially academic teacher's worth and a principal aspect of the judgement of his morale. Needless to say that just like in other cases compliance with ethics is to be judged not only in terms of verbal declarations and views aired but also in terms of tangible behaviour. One must not act in the way that gainsays the declarations he airs. I apologise for saying such obvious things here. I hope the reader can guess the reasons for doing this.

III. Survival is at stake. Learning from others has taken a long time in my life, actually I have always been doing this. I also acted as an academic teacher for several dozen years. Now I am an old retired professor and a doctor, still active in so far as my physical energies allow, perhaps even very active, as there is an urge: awareness of the nearing end of my journey, and that I might have and should have done more.

As I am aging, I am becoming increasingly concerned over the prospects of humanity on the Earth, for truly alarming is the gap between human capacities in the realm of transforming nature that he owes to science and technology, and his moral maturity, which is reflected in: wasteful exploitation of nature, disrespect for life, ill human relations, spread of hate, inflicting suffering and pain upon others, diseases and untimely demises, promotion of the model of civilization having money as the foundations, establishment of economics and its rules as a fetish, and consumption and possessions exceeding actual needs as the purpose of existence.

The present stage of development of mankind appears to be a phase that I would describe as running without the knowledge of the aim, which effectively leads to self--destruction. These are not an old man's delusions, but an outcome of specific observations, and sound analyses and evidence that I have included in my books and numerous articles.

I am ending my days in the decadent age, that may be foreshadowing radical revaluations and advent of a new age and new Aquarius civilization foretold by astrologers, or fall of man who might share the fate of dinosaurs, an experiment of nature that turned out to be a failure.

I wish I would pass away, having good reasons to hope that mankind will last another thousand years, free from the curses that it is plagued by today, for which it is to blame, though. Being a mortal link of the the great, hopefully immortal chain of human entities, I would like to offer some of the many-year-old experiences and reflections of mine as a sui generis testament to my students, part of whom are teachers and in whose performance I take pride.

The stake in the game being played consciously or unconsciously by mankind is survival. This could be achieved if humanity regains the state of equilibrium or homeostasis. The equlibrium has been upset and is still increasingly being disturbed by the positive feedback of man and the biosphere.

This is consequent upon existence of a chain of other positive feedbacks among variety of subsystems such as: arms race, relationship between foodstuff production and population growth. If the future of the world proves to be a mere extension and development of the trends predominant at the present moment, the future will be short and tragic rather than long, for disturbance of the equilibrium taking the form of a positive feedback leads to immobilization meaning death of any system.

It would be simple-minded to believe that one morning we shall be told that humanity has given up armaments overnight, adverse superpowers have fallen into each other's arms, and big corporations abandoned the uncompromising pursuit of profit.

All these things, however, are bound to happen, and not in, say, two hundred years but much sooner, maybe in the lifetime of those who now are pupils or students. To make them happen we must first contain the crises, at least in the functioning of the minor systems, especially those that serve the needs of the future, such as education at all levels, medicine and medical care, and permanent medical education of peoples.

I hold the firm belief, I have been advancing for a long time now that medical education should undergo far-reaching changes. The many-year-old experience I have acquired indicates that a doctor truly committed to protection of human health must not be an officer of medicine, a narrowly specialized expert in disorders of one organ or a group of diseases.

Certainly, getting specialized in, or exploration of the many fields could indeed be indispensable to ensure increased effectiveness of medical treatment, yet it is also necessary to encourage and develop horizontal perception of a human being, for successful treatment depends not only on efficient "repair" of his organs, but also on having the knowledge broader than that one can acquire by learning anatomy or physiology, as a human being according to structural philosophy is more than a mere aggregate of organs.

Therefore a doctor should have firm foundations meaning knowledge in the realms of philosophy, psychology and aesthethics. Undoubtedly I would never have succeeded in the treatment of patients, whom medical knowledge classified as incurable cases had I not had active imagination in my young years, which I owed to my parents who implanted love for music, plastic arts and literature in myself, or had I not acquired certain skills in the field of psychotherapy, a result of personal experience. Obviously devising one or another syllabus of medical studies can hardly solve all problems we are confronted with in educating doctors. Academic methods can hardly work in all aspects of the education. It is essential, however, that a medical student be a person open also to what we could most generally term humanistic, values and have genuine spiritual aspirations, providing him or her with an urge to pursue self-improvement, and not only in the strictly professional dimension.

In short: he should be a sensible person capable of sound reasoning, with an active sense of empathy, and not a machine designed to operate on patients, prescribe medicines, make money and unscrupulously receive bribes for different services he is obliged to perform under a labour agreement (not to mention the vows he has taken).

I must also note that the present-day medicine is confronted with the crisis of confidence on the part of the patients, which of course does not preclude my recognition of its successes. The crisis manifests itself not only in many patients' choice to seek assistance of healers of different kinds, who ironically leave self-conceited doctors offended as they bring relief to quite a number of the afflicted especially those who need psychotheraphy, a shot of hope and stimulation of their vital energies rather than larding with drugs.

The major sign of modern medicine's inefficacy is its inability to effectively prevent the spread of the so- called civilizational diseases. Its record in the field of identifying

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links between a patient and his job, social and natural environment has also been unsatisfactory.

Several dozen oncological centres might be built in Poland sometime (which also appears to be a pressing need), as well as numerous mental hospitals, cardiological centres, all of which though could hardly be seen as success of medicine, even if it results in extension of lives of those suffering from different kinds of cancer, improvement of the schizophrenics' condition and more heart transplants. We could only speak of a success won by medicine when these diseases begin to disappear rather than to mushroom.

My research work in the field of blood diseases, particularly leukemias has shown that they are frequent in some areas, and in others are rarely reported.

This made me begin looking for the reason. It proved to be ecological determination. But there are other diseases that are triggered by it. The environments where numerous cases of leukemias are reported also show substantial occurence of other civilizational diseases. The reason is quite simple: "civilization diseases" emerge when other environmental factors damage or upset human being's natural defence mechanism (immunological system).

I have often pointed out before in variety of publications to the observations made, and confirmed in many countries that different kinds of sclerosis, tumours, leukemias, sclerosis multiplex, bad tolerance of alcohol and many other disorders are particularly frequent in the areas where human constitution is exposed to influence of various toxic compounds, found in the air, water and food, for just one environmental factor, deficiency of dolomite, the carbonate of calcium and magnesium may trigger enormous variety of diseases.

Therefore it seems that the principal task medicine is confronted with today is fighting the frequently thoughtless and unnecessary contamination of the human being's outer and inner environments with side-effects of industry, and drugs respectively, as well as preventing civilizational diseases through systematic supplying our constitutions with microelements, their deficiency being an effect of the rapid development of the technological civilization. I have been agitating for this for years now, with some success recently. I cannot be sure though, if I eventually manage to bring the work to a successful conclusion.

The academic teacher's dream of mine is that the largest number possible of students could cleave to the ideas of an old professor of theirs and act in compliance with the rules of ecologism (that I was discussing on different occasions, e.g. in "Sumienie ekologiczne" (The Ecological Conscience) and "Nie ma nieuleczalnie chorych" (The Incurably Ill Do Not Exist) which are simply the humanism of our times. It is not my wish that my students should state the righteness of those works of mine that I see as mere hypotheses. Nursing wishes like that is the matter of a remote past as far as I am concerned. Let them possibly overthrow the theories, provided they do it having studied the relevant matters thoroughly enough.

What really matters is that we should enter upon very serious and painstaking studies that might bring about the moment when we cease to be the world's leading nation in the number of cases of stomach cancer among the rural population, and manage to arrest the leukemia epidemic among cattle and people, the number of the sick with other civilizational diseases begins declining along with demise rate among infants and number of abnormalities, chiefly mental consequent upon deficiency of for instance dolomite and vitamines to mention but two examples during the foetal stage of the human life.

There seems to be another special aspect involved in the relationships between environment and human health: various toxic substances found in the air, water and foods, especially lead, fluorine and mercury that do affect far less delicate tissues, must also have harmful effects on human brains.

The aftershocks are particularly grave in individuals whose consumption of liquor exceeds average levels (a problem very typical of Poland). Alcohol lowers quantities of magnesium and zinc in human organisms, the latter element being particularly scarce in Poles, due to inadequate diets and drinking water lacking sufficient amounts of magnesium, the element responsible for neutralizing lead compounds and other ecotoxins. This explains why we are particularly liable to nerve cells damages.

The struggle for healthy brains, especially among the young generation of the Poles, the one that is going to decide about the shape of our future seems to be the last challenge I am determined to stand up to, and also the most important aspect of the testament I will pass on to my students.

There is a remedy, pretty nearly a miraculous agent: vast deposits of dolomite at the town of Siewierz. Easily available as tablets, used as fertilizer for plants, added to bread and even liquor the substance could, according to my own and my family's personal experience overcome the doom of one of the positive feedbacks that continues to precipitate us into absurd nonentity.

P.S. I thought I would not manage to cope with the Editor's commission to supply this contribution when I was ill. And just then Mr Tadeusz Burzyński, a friend of mine and member of the Editorial Board called to see me. We had often discussed the questions I am concerned with in this essay before. He said he could easily write the text for me, as the ideas we had been considering were still fresh in his memory. I thought he was joking, but he sat down to a typewriter and wrote it. I should actually say he wrote it so nicely that I subscribe to every single sentence and remark in the essay. I have slightly emended the text and offered co-authorship to Mr Burzyński, who refused the proposal arguing that his collaboration was merely technical. I think differently but as my friend is a stubborn person, all I can do is to disclose how the essay was actually produced and offer my cordial thanks to him.

Ю. АЛЕКСАНДРОВИЧ

О призвании преподавателя вуза

В статье представлены размышления на тему идеала преподавателя вуза: каким должен быть хороший преподаватель, какими положительными качествами, черта-

ми характера и интеллекта должен отличаться. Автор подробно обсуждает проблемы личности преподавателя и его профессиональной этики. В рассуждениях автора отчетливо проступает его облик, облик врача и учёного-педагога. Большое внимание посвящено необходимости перемен в обучении врачей. В частности важно то, чтобы адепт медицины был человеком ясно видящим гуманистические ценности, в широко понятом смысле, чтобы отличался высшими духовными потребностями, стимулирующими его работу над собой, не только в смысле чисто профессиональном.

Aleksandrowicz

Sobre la vocación del profesor académico

El artículo presenta las reflexiones sobre el ideal de profesor académico: cómo debería ser un buen profesor, qué características debe presentar, qué rasgos de carácter e intelecto debe poseer. El autor describe detalladamente el problema de la personalidad del profesor y de su ética profesional. En las divagaciones del autor se percibe claramente su actitud de médico-humanista y científico-profesor. El autor dedica mucho interés a la necesidad de modificar el modelo de enseñanza del médico. Entre otros, subraya el hecho de que el graduado en medicina esté abierto a los valores humanísticos, tenga presentes las superiores necesidades espirituales que estimulen su autodesarrollo no sólo en el aspecto estrictamente profesional.

ALEKSANDROWICZ Julian, Professor of Medical Academy in Cracow, expert in hemotology, ecological prophylaxis of leukemias and diseases of modern civilization, Chairman of the PAS Commission for Protection of Public

Health, ex-vice-President of World Academy of Arts and Sciences, honorary member of American College of Nutrition, member of International Association of Bioniorganic Scientists, and of the Society for Environmental Geochemistry and Health. Member of editorial boards of "Folia Humanistica" in Barcelona, "Haematologica" in Rome.

My Career As a Scientist and a Teacher

by

ZOFIA LIBISZOWSKA

I am a historian, an academic teacher, a Professor at the University of Łódź. I have been on its staff ever since it was founded. The agreement under which I began work as a junior assistant bears the date of June 1, 1945. My credentials were the M.A. Diploma of Warsaw University secret courses I had attended during the war and the certificates stating that I had also completed part of the course of the studies at the Jan Kazimierz University in Lvov. For long years did I continue to regard that institution of higher education as my second home for it was the place where I experienced so many of the first thrills and so much joy of student's life and it was there that my aspirations and hopes were growing. I still look back upon those times, recall and visualize my first teachers, most of whom have passed away. It was them who taught me the basic rudiments of the methodology and the craft of history, activated my curiosity, and helped develop the habit of reading, left me abashed at the magnitude of their knowledge that seemed to be almost unbelievable. However, when the war brutally disrupted our idyllic university times we had to put our text-books away, and, what was even worse bid farewell to our home-city and the local mother-country and go through the gehenna, fear, horror, terror and anger of the years of the Nazi invasion. Owing to the assistance and encouragement of my late lamented master Ludwik Kolankowski, I found a shelter in the Zamojski Family Estate's Library in Warsaw, wh amidst heaps of rubble and under it, in a dark and cold basement of the famous "Blue Castle" I could have my traineeship as a research librarian and begin writing my Master's thesis. It was on the 17th century, and specifically concerned the Ukraine's magnates. I could easily avail myself of the Zamojski family rich archives, that were unfortunately almost totally destroyed by fire after the Warsaw Uprising, another tragic loss of an invaluable treasure of the national culture that had been restored at the cost of enormous amount of concentrated effort a team of librarians devoted to the job. I learnt a lot from my senior colleagues and I could see them in those years of defeat and humiliation, rescuing the Polish culture, writing scientific dissertations, joining the secret education, and at the same time striving to provide livelihood for their own families and even helping those who had lost their bread-winners. That was quite a different sort of life, the ordeal of an extra-mural student, working and trying to supplement the low librarian's pay with extra incomes, the hard lesson of the first-hand experience of history.

It was also then that we struck genuine, deep and lasting friendships, despite the passage of time and distances that would soon keep us apart. Leaving the home city and my environment there when I decided to get married and move to a provincial town was another bitter experience. Living in the small place was by no means quiet and peaceful. Behind the every-day monotonous routine one could always feel the presence of the underground guerrilla resistence movement. The forest was nearby. Then the next tragic blows came: Warsaw's tragic ordeal that disrupted the lives of so many of my friends, my husband's detention and arrest by the Gestapo, the lonely months of pregnancy. Again did I see my hopes fade away. The end of the war military operations in the parts where we were living, my husband's return and the birth of my little daughter made me remember January 1945 as a very special month.

My husband's new employment brought us to the city of Łódź. I was so happy to hear that a university would be set up there. My considerate master Professor Kolankowski who was engaged in organizing the school offered me a job in his department. It was like watching heavens open up to let you in. Poor work conditions, typical of this kind of brand-new enterprise, provisional quarters, inavailability of books, all that had no resemblance to the good old, causy and beautifully tinted by its old age interior of the Polish History Studies Department at the Jan Kazimierz University. And then quite unexpectedly the figures of remarkable talent, enthusiasm and knowledge began joining the University of Łódź. They did not expect to have everything prepared for the start or routine activities. They created the foundations by themselves, and led to the opening of the normal university courses as early as the spring term 1945, the eloquent fact indicating their tremendous dedication to the job. The academic life began even before the formal proclamation of the legal and statutory decisions by the government decree. Classes, lectures and seminars were held long before the proper solemn opening of the university's operations. The ranks of the students were swelling month by month and the successive terms saw increasing enrolments. Before long the number totalled several thousand. They rejoiced their status, opportunity of learning, many of them had just left guerrilla troops, some had gone through the concentration camps ordeal, or were simply resuming the studies disrupted by the outbreak of the war. A junior assistant, I was almost of the age of those whom I was supposed to help in acquiring knowledge. Now I should humbly and honestly confess that looking back from the present position I understand that I was not prepared for the job.

The many intermissions in the course of my studies, the diverse curricula I had to cope with, my nation's ordeal and my own tragic experiences as well as being expectant mother several times did affect my mental and emotional condition. My memory was at fault, and I could hardly remember even the basic facts. While self-learning was the only resort, frustration and highly sceptical self-evaluation were my frequent experience. To compensate for the meagre progress in my research work I dutifully engaged in the office-type work and community activities. The students of the first post-war years were so kind and sympathetic. I still remember quite many of them and remain grateful for the kind understanding they showed me then.

I was gradually becoming more productive in the research work. The process could be divided into three stages I shall briefly discuss now. The subject of the doctoral dissertation was my own choice approved of my first master Professor Kolankowski, who was not too happy about it, though. It was meant to be a biography of Queen Louisa Mary including elaborate treatment of the political aspects of the times that saw the "Flood" (the Swedish invasion of Poland), and the attempt at reforming the Diet and elections of the kings. It was hardly possible to collect the reference material and the sources on the 17th century in the post-war Łódź. There was, however, a relatively well-operating inter-library exchange system through which one could relatively fast obtain not only a book but also an old print or even a manuscript. I also had to make trips to the large depositories in Cracow, Warsaw, Wrocław, Toruń and Kórnik. It was then that I saw the major manuscriptal resources. I developed enthusiasm for making discoveries and learned to rejoice learning about the past directly from the ancient evidence. After the war years intermission I found myself back in the air of science that I first felt in the libraries of Lvov and Warsaw. I came to understand the nature of research toil and the historian's responsibility that appears to be a porte parole of the times and people that will never return again. This sense of responsibility has always been with me in every research project I engaged in. I have always given priority to this sense of responsibility in my research work. Just like erroneous and hasty diagnoses can barely increase patients' confidence in their doctor, the voicing of inconsiderate judgements, conclusions and comments, may undermine reliability of a historian. Numerous verdicts have been passed on the protagonist of my doctoral dissertation. While reading those judgements frequently contradicting one another, I thought that historical investigations should not serve to stage trials of the particular individuals and pass verdicts but to describe the times, when they lived, as well as the mechanisms and determinants that have proven to be of weighty consequence for historical evolution, while the individuals' lives, work, actions, decisions and commitments could be referred to for making generalizations.

When Professor Kolankowski stepped down from the post of the head of the department of History of Poland, Professor Józef Dutkiewicz, another master whom I owe a lot took over. He had exerted tremendous impact on his staff and students, by setting the example of his own behaviour, and his excellently written dissertations that betrayed the highly professional pen, rather than by indulging in lofty rhetoric.

The year 1950 saw the completion of my doctoral dissertation and the final examination preceeding the conferring of the degree. I saw the experience as a glorious private victory of mine, and a good reason for having satisfaction. The pleasure was by no means full as it was clear that no one needed results of my inquiries in the contemporary circumstances. On the contrary it was quoted as an example of an inadequate choice of the subject. Royal biographies were supposed to be discarded, while overrding priority was given to economic and social history. It was then that a conference in the town of Otwock near Warsaw marked the beginning of the period of dogmatic Marxism in our science. The conference has been termed "historic" by the luminaries of my discipline. My research record of the years 1950 - 1956 appears to be meagre. I had to make radical changes in the selection of the research foci. The new subject areas were: regional history and history of material culture in the Łódź district. This represented an opportunity to study other types of reference materials: records of towns, cities and estates, inventories of the Polish gentry's properties, and the like. Working in Professor B. Baranowski's team under the auspices of the PAS (Polish Academy of Sciences) institute of the History of Material Culture I could acquaint myself with the methods of work drawing upon diverse and extensive sources that provided grounds for forming statistical conclusions and added new aspects to the knowledge about the history of the population that inhabited the area under examination. The studies also increased our cognizance of the lot of the "non-historical" social strata, who did not provide any written accounts of their situation. The Marxist methodology proved to be useful in our work, as we employed it reasonably and not just for show; it was also devoid of idle cliches. A research unit was also formed at the Institute of History in Łódź to start pursuit of the studies on the history of historiography. The scientific supervision over its operations was provided by Professor Henryk Serejski. The regularly held meetings of the unit gave excellent opportunities to become familiarized with the historical methodology, to join one of the many spirited and open-to-all discussions and methodological debates. The period of positivism was in focus of our studies. I chose to investigate facts about a 19th century historian Józef Plebański who dealt with the 17th century, the figure that had fallen into oblivion.

Those studies nicely overlapped my interest in this same historical period. By examining the historiographer's rich hand-written heritage I discovered the diverse aspect of his research and teaching activities as well as the views and theoretical foundations to which he adhered in his work with students of the Main Warsaw School. The scholar would always stress that he saw his research work as a fertilizing agent for his teaching activities. He too, would ask himself the questions I was seeking answers to: What is history? Why do we learn it, and which chapters of the closed past that will not happen again need investigating? His outlook was clearly affected by L. Ranke's and Hegel's philosophical ideas.

The small size of my essay on J. K. Plebański conveys no idea of the enormous amount of the reading I had done in his manuscripts and other materials.

I did not neglect the studies on political history though. Besides, I needed that knowledge for teaching. The 300th anniversary of the Cossack-peasant uprisings in the Ukraine and of the Swedish invasion of Poland represented the special occasion to engage in the studies which led to the production of publications on these subject areas. As a result of this my candidature was approved of during the CKK * selection proceedings and I was conferred upon the degree of assistant Professor and the status of independent research worker.

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* CKK = Main Qualifying Board.

The changes in the country's life that followed the historic 1956 October party plenary meeting brought about relaxation of the atmosphere at institutions of higher education, extension of the margin of freedom in pursuit of research activities as well as restoration of the previous position of political history and biography writing.

Man was again made the principal subject of history.

As a holder of the degree of assistant Professor and a full-time employee, I first took on lectures, classes and seminars in universal and modern history and the culture of the 16th - 18th centuries in the Department of History of Poland at the Institute of History. Since 1970 I have been pursuing research and teaching activities within the framework of the Section of Modern and Recent Universal History. Thus it became inevitable to establish closer and lasting links between my research methodology and teaching, and make the inquiries subordinate to the objectives of work with students. Again did I change my research foci I decided to replace the 17th by the 18th century as a research field to be explored for I was well aware of the difficulties involved in conducting studies on the 17th century in the city that did not have proper archives or the special collections of reference materials indispensable for the purpose of pursuing research work. Although the University's library resources were quickly swelling and the successive years saw rapid growth of the collections, the materials were arriving irregularly and the prospects of having a complete collection of the necessary materials were rather thin. It is also well known that studies on 17th century require systematic exploration of archives. For the 18th century we had much more extensive reference resources including abundance of old prints, press materials and other types of reference materials.

Regional studies based upon the 18th century sources was another research option. The Age of Enlightenment attracted me also because of its rationalism, the philosophical outlook on man, tolerance, increased international exchange, the overwhelming impact of the French culture upon the European civilization, and its effects on the western hemisphere, but most of all due to its novel and encouraging programme of reforms part of which were launched in this country.

My first publication on this subject area was the book *Opinia polska wobec Rewolucji Amerykańskiej w XVIII w.* (*The Polish Public Opinion's Attitude Towards the 18th Century American Revolution*) (Wroclaw, Łódź 1962). The reference material I used to produce the book included: press cuttings, diplomatic reports, memoirs, private letters, hand-written newspapers etc. I think it was a good start. The 200th anniversary of the proclamation of the American Independence that would fall in 1976 and the publishing of the great series of publications marking the occasion were a long time ahead then. The Polish library and archive resources had not been searched for the relevant information either by then. Therefore the book of mine, being the first inquiry of this kind represented a significant achievement despite all its shortcomings.

In 1963 I was first granted three-month-long research trip to France. The offer came too late, though I am afraid. I was an "elderly" assistant Professor then and unlike other Polish scientists travelling abroad could hardly dedicate myself to my own research programme. While I was supposed to deliver three lectures, one of which was to be read before the intellectual elite of the Sorbonne. It was quite natural then, that I spent long hours preparing the papers to be presented both in terms of substance and linguistically. However, I did manage to slightly elaborate the reflections on the Polish-French relations I was first concerned with in my doctoral dissertation. I was also told that two of the papers I had read would be published, a good reason to rejoice. The stay in Paris gave me the opportunity to get to know as much as I could what was what in the Archives Nationales, as well as in the Collections of the National Library, in the Archives of the Ministry of Foreign Affairs, and in the Polish Library. During the next (unfortunately much shorter stays in the French capital) I used the call numbers I had previously written out. My findings and reflections on the Polish-French relations in the 17th and 18th centuries have only been published in the form of articles so far. The work on a book concerned with this subject area is proceeding very slowly and with difficulty, I must say.

While combining the available Polish reference materials and the information I compiled at Public Record

Office in London, I could produce a monograph on The Polish Diplomatic Mission to England in the Reign of King Stanislaus Augustus (1769 - 1795) published in 1966, and another book entitled *Życie polskie w Londynie w XVIII wieku (The Polish Presence in London in the 18th Century)*, (Warsaw 1970). The several-week-long British Council scholarship, in turn, gave me the opportunity to do more research work in the British archives and to see other cities. The subsequent publishing of several essays evidenced the productive character of the trip. The stay in Dresden arranged under the agreement on co-operation in science between Poland and the German Democratic Republic enabled me the reaching of the reports by J. J. Patz, the Saxonic charge d'affaires in Poland during the period marked by the creation and activities of the treacherous Targowica Confederacy and the outbreak of the Kościuszko Uprising.

I edited the reports for publishing in collaboration with Professor M. Kocój. I was very proud of two invitations to visit the United States. The first trip was on the occassion of the celebrations marking the 200th anniversary of the proclamation of the nation's independence and I was asked to deliver lectures on the Polish response to the news about the American revolution and the effects it had on the life in Poland. The other visit was in 1981. It was the IREX scholarship to a city and university I would choose. I decided to go to Washington because of the prospect of using the Congress archives and library, another opportunity to reach the sources of knowledge indispensable for successful pursuit of my research work. The main product of the two months long trip was the book on Thomas Jefferson, which is now in the press.

Owing to the agreements on direct exchange of scientists between the University of Łódź and some French universities (of Lyon, Paris, Nantes) I could extend the realm of my research interests by the problems relating to French archival records, and establish scientific connections with some of the country's experts in the modern history. The opportunities to present my interests abroad and in clusion of foreign research foci in the field of my research work broadened the scope of my studies and affected the choice of the specific directions to be pursued.

I believe this has also proved to be beneficial to the overall operations of our historical studies centre. The propagation of one's research achievements on the international scene represents a very important stage in pursuit of one's scientific advancement. The connections I have established have also given me the opportunity of participating in numerous conferences organized by European and American experts in the problems of the 18th century in different academic centres. Some of the meetings (e.g. Matrafured in Hungary, or Clermond-Ferrand) concerned with particular subject areas are held regularly and enjoy world-wide renown.

I still investigate the aspects of the Polish-American, Polish-French and Polish-English relations in the 18th century I began to study years ago. The presentation of the results of the researches takes more forms than just printed publications. I include the products of my studies in the syllabuses of my classes with students, and graduates pursuing the Ph. D. degree, I quote my findings in my monographic lectures, and papers presented at scientific sessions and conferences held in Poland and abroad. I could hardly say how many such presentations I have had so far, but even more difficult a task it would be to define the scale of the interest the papers, lectures and contributions have generated. It seems, however, and I firmly believe that the methodology of the academic teacher, sensu largo involves more aspects than his own research work and production of publications. No less important a matter in our profession is the perception of the spoken word and promotion of students' and Ph. D. applicants' progress.

Following this path of reasoning, I would also insist that the research area of the academic teacher unlike that of non-university research institutes' staffers must not be too narrow, over-specialized, or focused strictly on one particular problem. A historian acting as an academic teacher must ex definitione be a humanist showing broad interests, although not a diletante of course. He should try to meet half way the social expectations articulated by his academic environment or secondary school teachers and all those coping with the requirements of the history teaching curricula. Briefly speaking to prevent teaching from becoming routine performance of vocational duties it must be fertilized and refreshed by teachers' determination to inject their ever new and more and more thorough knowledge into their work with all categories of students. This has to be remembered when one enters upon pursuit of his own research tasks. One implication of teaching is the necessity of having proper knowledge of quite extensive stretches of history. My field includes both the lives and work of Nicolaus Copernicus and Voltaire, and even facts about the French Revolution. From time to time we are reminded of oncoming important anniversaries that are nationally celebrated as opportunities to show our unity and respect for the tradition. Those celebrations are disapproved of by some. In my view, however, they stimulate civic reflections and help perceive the heartbeat of history.

The Copernicus anniversary activated enormous amount of human energy and creative ingeniousness. The involvement of the large number of historians who busy themselves with the modern history was quite natural, of course. No less productive were the anniversaries of: the creation of: the Committee for National Education, the 3rd May Constitution, and the victory King John III Sobieski won over the Turks near Vienna. No one insists that a jubilee atmosphere, gilded congratulatory scrolls, and especially the arousing of the national megalomania are the indispensable prerequisites for celebrating historic events. On the contrary, the recent anniversary of the Vienna Victory triggered disputes, critical remarks, polemics but also improved the public knowledge of those times and of the complexity of the contemporary political situation.

I think that declaring the anniversary mobilizations, and committals is one of our permanent duties to the nation and the discipline we pursue. Providing lectures not only for professional circles, but also for wide audiences appears to be an important aspect of historians' work, it is the best test they could go through, and also an excellent opportunity for self-evaluation. Avoiding the so-called special commissions and seeking seclusion of armchair studies, one can hardly escape criticism in the long run.

As I see history as a social science that both describes people's ordeal and constantly attempts to convey messages to them, I am totally dedicated to popularization of history. Doing this, however, I am but rarely concerned with the Polish problems as I believe that these have been dealt with by researchers more competent than myself. In my writings I am concerned with the countries on which I have taught (at departments of French and English studies), to which I have been, consequently having the opportunity to reach beyond the sources available in Poland. Apart from producing the re-done version of my doctoral dissertation (*Żona dwu Wazów — A Wife of the Two Vasas*) that came out as a popular publication in 1963, I also engaged in writing biographies of other historic figures: Louis XIV, the French encyclopaedists, Thomas Paine, La Fayette. The introduction, and supplementary remarks were my contribution to the editing of *Pamiętniki Kobiece (Women's Memoires)*, a "Czytelnik" Publishing House series.

As far as teaching aids are concerned, I produced a university methodological guide on the modern history and compiled a selection of the 17th century texts on contemporary problems and supplied it with supplementary information and comments. I have also been invited to write for the professional periodicals "Mówią Wieki" ("The Message of History"), and "Wiadomości Historyczne" ("History").

Thus, what is the academic teacher's methodology or what should it desirably be?

The methodology is determined both by the natural requirement of pursuit of research work and by the vocation of teaching i.e. sharing knowledge with others and preparing them for their future roles in the society. A historian acting as an academic teacher moulds minds, hearts and attitudes of those who are expected to protect, popularize and develop the heritage of the national culture. His own research techniques, strategies in handling research and teaching problems exert powerful impact upon his students. All of us take pride in having received education from those whom we see as our masters, and vividly remember the first steps made under their guidance, even though we often significantly depart from their advice and interest areas.

Vocational ethics appears to be the most essential aspect of research work and teaching. It provides the urge to show responsibility, reliability and orderliness. Ability to provide good example to students can do more good than admonishment or criticism. I am inclined to believe that what young people expect of their teachers is not flattery, which they tend to see as a sign of weakness, but showing them the way to follow. Their vocational careers should not begin after graduating from institutions of higher education. Preparing a young man or a woman for his or her career on their future jobs should be part of the university training. It is only right that the methodology needed for providing proper performance as teachers-educators, workers of culture should be built by the future employees already during the course of the studies. The methodology should grow on the foundations of intellect, the skills being acquired and the awareness that one is certain to face serious and responsible educational tasks and take over the duty of fanning the torch of learning to enlighten next generations.

Ours is a complicated and turbulant world. The situation of our own nation remains unstable and to make things even worse, we must admit the set of values based upon trust and confidence in authority has been upset. The role and credibility of the teaching of history are being called into question. The antagonistic camps armed with historical evidence engage in debates, and polemics and stage propaganda attacks on each other insisting that the adversary distorts facts. How could this be possibly helped? How can we save our discipline and protect its role in the creation of culture? How should history be taught?

The word "history" is used in at least three senses. Firstly, it is the past as such, i.e. the events that have already taken place. Secondly, we use it to refer to the science of history viz. historiography that is our knowledge of the past events stemming from empirical and analytical studies. Thirdly, it is a subject taught at school. No agreement has been reached as yet on the question of what fraction of the whole of school curricula history teaching should represent. Perception abilities of a child or an adolescent require certain simplifications in the presentation of the material to be taught, which are eliminated at the university, specialist stage of education, by supplying the students with broader theoretical foundations and teaching them methodology of interpretation.

They say: history will pass a verdict, a judgement, history will show if ..., history will explain why ... Can the judgement of history be identified with a historian's opinion? I disapprove of viewing historians as judges of the tribunal of history. If one insisted on making comparisons in terms of the jurisdiction machine, I would rather see a historian as a barrister rather than a judge, but never as an attorney.

Polemics, disputes and pitiable "tribunals of history" first emerge in the realm of interpretation. A judgement by one historian need not necessarily overlap his colleague's view. Besides it often happens that one person changes his views and airs judgements that substantially differ from what he used to say. It is therefore advisable to avoid voicing inconsiderate verdicts, that are promptly repeated by the public. The history's role is to explain and teach sound reasoning, and ability to perceive the logic of events and their continuity, to shed light on the ways along which the successive generations were proceeding, all of which, however, must not be amied at putting the past on trial. For we are not supposed to stage arrogant hearings on facts and figures but to provide reliable knowledge about people, the richness of our national culture and the cultures of the countries that used to be or still are Poland's neighbours, about mechanisms and organization of the state, and social structures approached comparatively, as well as about the lights and shadows of our history viewed against the background of social and political objectivity of our continent or perhaps even of the entire world.

A historian may only be useful to the society if he refuses to yield both to current attitudes or short-lived emotions and to political pressures, acting sine ira et studio always committed to the commandment of his vocational ethics that has been given the following wording in the doctoral vows:

> "to let the light embracing the whole of mankind shine more intensely".

З. ЛИБИШОВСКА

Мой научный и преподавательский путь

На основание своего научного и преподавательского пути автор показывает мастерскую преподавателя вуза и учёного историка. По мнению автора, мастерскую преподавателя вуза определяют не только очевидные требования научно-исследовательской работы, но и его преподавательская миссия, которая заключается в том, чтобы передопать знания, а также приучать учеников к их будущей роли в обществе.

В творческой и дидактической работе наиважнейшей является профессиональная этика, которая требует чувства собственной ответвенности, добросовестности и внутренней дисциплины научного работника и преподавателя. Преподаватель вуза-историк формирует умы и сердца, а также облики тех, которые будут носителями нашей национальной культуры. Собственные исследовательские методы историка, его методические принципы, его отношения к научной дисциплине, которую он занимается, оказывают огромное влияние на учеников.

Z. LIBISZOWSKA

Mi carrera científica y docente

Basándose en su carrera científica y docente, la autora del artículo presenta los métodos de trabajo del profesor académico, los métodos de trabajo del científico-historiador. Según la autora, dichos métodos están determinados tanto por la evidente necesidad de la labor investigadora como también por la misión de profesor consistente en instruir a los demás y preparar a los estudiantes a desempeñar apropiadamente su futuro papel en la sociedad. Lo más importante en el trabajo creador y didáctico es la ética profesional que exige fuerte responsabilidad propia y gran

disciplina interior por parte del trabajador docente. El profesor académico-historiador influye, mediante sus enseñanzas, en mentes, corazones y actitudes de los que serán portadores de nuestra cultura nacional. Sus métodos de investigación, sus principios metodológicos, su actitud hacia la ciencia que cultiva y propaga ejercen suma influencia en los estudiantes.

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On My Research Arsenal

by

STEFAN ZBIGNIEW RÓŻYCKI

The concept of research arsenal is very complex and requires a broader discussion. It involves not only the routine activities but also a variety of intellectual qualities whose presence is characteristic of creative work, which does not consist in repeating the existing patterns. When it does not show these features it is merely the practicing of a research craft.

A proper research arsenal is a resultant of a variety of factors such as talents, personal dedication to the job, research enthusiasm and energy.

The research arsenal is never built overnight. It takes years to develop it, actually almost the whole of one's life. It includes all observations, perceptions and experiences gathered on different occasions, knowledge built by reading as well as the views one forms consciously. Hence a discussion of the process of formation of what is called research arsenal necessitates a presentation of a researcher's story.

The process began very early in my case, though I was not always aware of its progress. As a child I had a very good visual memory (in fact I still have it) and could carefully watch things going on around me. I think it was the interest in metallurgical works near which my family were living that developed the ability in myself. No less important in this respect was my environment being so diverse and multilingual.

I was born and spent my childhood in the open steppe of the central Donets, amidst impenetrable forests of musk thistles white downy meadows of the kavilnyi steppe (Stipa natans) vibrant with activity of innumerable creatures. The steppe was my first playground and my first school of experience. My imagination was fed by long riding on horse-back across the steppe, the frequent trips we made to see our relatives scattered all over the southern Russia, Belotserkevshtchizna where I saw that there are different kinds of steppe than that in the Donets Basin, the stays at my grandmother's in Odessa, the experience of the Black Sea and men working at sea. Travelling to the Caucasus with my father, the long journey by train across the steppes of the south, the mouth of the Don river, the semidesert region of Kuban, days and hours spent by the window of the compartment taught me how to watch, perceive the changing sights and remember the things passing in front of my eyes.

The Caucasus foreland was something quite new to me, as endless plains were all I had always seen before. I can still vividly remember the sight of the main snow-capped grandiose ridge of the Caucasus. Quite clear in my mind are also the memories of the trips round the environs of Piatigorsk and Kislovodsk where my father went to try mineral waters treatment, numerous huge springs, enormous deep Karst depressions caves in pumice rocks, traces of the flow of fluid mass, amazing shapes of edithic erosion: mushrooms, gates, windows, caves, unknown flora changing as you climb higher and higher. The people were different too: dusky, dark-haired, energetic. Romantic legends about castles turned into stone were in the air. All this left me dazed, as I suddenly saw that the world could be different from what I had known by then, and it was all real and not just a fairytale. The desire to watch, watch, watch and remember was always there. That is why the images are still so vivid in my mind. As I look back, the experience appears to be the corner-stone of my research arsenal.

The memories of my native Konstantinovka are quite vivid too. What has always amazed me is the fact that the direction of the fall of the rock layers in the quarry that I last saw when I was ten years old sank in my memory. I remembered the petrographic type of the rock and still see those coarse-grained quartz conglomerate with thick grains.

The good visual memory has proved to be very useful many times in my life even when I could refer to numerous photographs.

Then came the books. I was reading a lot, travels being my favourite subject. First it was the story of the polar expedition a duke made on the Stella Polaris, then accounts of Amundsen's voyage to the North Pole and Nansen's exploration of Greenland, Scott's diary of his trip to the South Pole. Stories on the temperature zone by Stanley, Livingstone, Sven Hedin, Przewalski, Grąbczewski and others were on my reading-list too. I knew all of them as a schoolboy of twelve. The sleeping-bag I made of a blanket and then slept in it, and the sheets I used to build tents best evidenced my fascination with the books.

Then almost by chance came the interest in geology. It was generated by the information I got from Stach Tynecki (whose mother was a nature study teacher at one of girls' boarding-schools in the town of Częstochowa) that besides other fossils sponges were found in the quarries at the Jasna Góra hill. I was amazed for my only association for the word sponge was the thing used for washing. I rushed to find out what the whole story was about. That is how my longstanding penetration of the Jasna Góra quarries began. My meagre knowledge was deepened by the members of the excursions from the Department of Geology of the University of Warsaw. I showed them the way to the local outcrops. I also learnt the names of numerous kinds of ammonites and Brachiopoda. I could distinguish the individual species. The formation of my own collection began then. It would become quite imposing after some time.

I elaborated a counter line and geological map of the Jasna Góra hill. I made a set of demonstration plates showing specimens coming from different stages. They were put on a school exhibition, and next sent to an exhibition in Cracow, where Profesor Jan Nowak saw them and said the collection represented sufficient basis for granting me Master's degree. I was in the sixth form of grammar-school then (while the graduation exam was taken in the eighth form).

In my final school years I found quite a lot of geological elaborations in the library of the very much neglected museum of the Częstochowa chapter of the Country's Lovers Association. I read the studies by Siemiradzki and Kontkiewicz on the Jurassic rocks range running out from Częstochowa to Cracow, which made me try making trips on my own.

As a university student I could use the library of Department of Geology. I carefully read the Jurassic studies by Koroniewicz and Lewiński. I also began reading foreign Jurassic writings mostly in French and Russian as I was quite proficient in those languages. I also learnt some German which I badly needed in my work although the experience was painful rather than pleasant. All that was not enough for me though. The encouragement offered by Professor Roman Kozłowski and my own interest made me enter upon studies on the existing research output of other branches of geology. I chose to pursue those studies in an unusual way. During the siesta time after lunch when there was not a single soul inside I engaged in one-be-one examination of the books stored in the library. While doing that I came across very interesting works that were not generally available for loan, such as Kropotkin's precursory dissertations on quaternary including the many sensible remarks on the methods employed in exploration of that research area. I found them extremely educational. Once there came a real discovery: a collection of several hundred American maps by Gilbert that showed a wide range of the forms of the relief illustrative of the classical U.S. examples. I found it in a forgotten remote book of the library. It showed that the atlas had not been heard of in our Department. I personally saw it as an authoritative manual of cartography and geomorphology.

On Sundays and days off I hiked round Warsaw environs. I would always find a lot of new interesting outcrops during those trips. I kept records of those findings and worked them up. Later I passed the records to Jan Samsonowicz who used them while writing his introduction to a guide to Warsaw and its environs. He loyally mentioned my contribution in the publication. Reading was by no means enough though. I card-indexed my bibliographic notes, divided them into subject groups and added brief pieces of information on the contents. It really was invaluable source of information. The catalogue soon assumed considerable proportions as I supplemented it regularly. It grew up to the size of a thick volume, but was totally destroyed during the 1939 air bombardment of Warsaw.

In the next years I was making similar extracts from my field research notes, which was very toilsome, but also very productive for it was like laying foundations for my future achievements. I modified this strategy later and began using files. In fact I still rely on this system. Its major merit is the relief it gives to memory, the principal device of research work. Some of my colleagues followed my example and have also been happy with it.

However, it was field studies that proved to be most educational. I had been carefully watching various localities for many years when I began to chart. Once you start making maps you are confronted with more complicated tasks than mere finding bassets of old rocks with fauna traces. You are supposed to show the distribution of all kinds of deposits found on the surface and point out to their mutual relationships. This was not easy to do and required enormous concentration and perspicacity needed to achieve consistency in creating a cartographic representation and ensure that it reflect the evolution of geological and geomorphological history of the given area. There were no teachers to provide instruction in this field. My colleagues were engaged in classifying and indexing the samples of fauna they had found during their field researches or worked on stratigraphic problems. I had to learn by myself, which was not easy considering the contemporary inavailability of reliable patterns or experience to follow.

I chose easy localities or those that presented reasonable research difficulty. The logic of the distribution of the quaternary deposits, and its implications in the field of geomorphology was gradually becoming clear to me, which made me believe that the quaternary needs more elaborate treatment. The experience of the north-eastern side of the Świętokrzyskie Mountains was my next school of charting. There were not too many bassets there and even fewer outcrops. I had therefore to learn charting by rubble found in the ploughland, the state of the crops and well findings.

Only later did I have opportunities to use bore-holes, and shallow hand-made drillings for research purposes, which enabled proper charting, with the exactitude of 1 : : 5000, although it involved numerous methodological problems, some of them being quite difficult to tackle.

Excursions proved to be very important for the purpose of developing research skills and building the professional knowledge. There were one-day's trips round Warsaw environs arranged by our Department and a couple of weeks' excursions organized by our nature-lovers' club. The excursionists were geologists, geographers as well as botanists, zoologists, biologists and even historians. Many of them became professors, and a considerable number have held executive posts in scientific institutions.

Owing to the composition of the party, we could conduct comprehensive researches based on exchange of information, which also represented an excellent opportunity of improving our knowledge of the allied sciences, botanics, zoology and history of settlements. The excursions actually resembled expeditions and were very cheap as we travelled on foot carrying luggage on our own backs, most of the provisions being food we took from our homes. We covered tens or even hundreds of kilometres. We walked across the whole of regions of Podlasie, Grodno, Podole, Pokucie and reached Czarnohora in the Eastern Carpathians. Those long tramps were extremely educative for hiking is the best way to get to know a country. Motoring is nothing but sliding through an area that gives vague idea of the places you see.

In the course of my traineeship at the Borislav Carpathian station I did a lot of hiking on weekends and days-off. I got to know the mountains and acquired a large collection of samples of rocks and fauna individuals, that had been given little attention by the Carpathian geologists.

My greatest success was discovery of radiolarites in the lower Flysch Cretaceous. It was a real Carpathian sensation as it altered the theories on formation of Flysch. The lesson was that both deep-sea and shallow-sea deposits could be found in it, the experience which showed me that new and interesting findings can be made even in the area that had been explored before. All you have to do is to watch things carefully.

Doctor Tołwiński, the head of the Borislav Station also took me on several-days-long tours of the rim of the Carpathians, during which I saw the places covered by the lowland Miocene rocks. That experience initiated me in the study of geology of the Carpathians.

During a month's hiking round the Podole region Mr Tadeusz Wiśniewski, a botanist, and myself made the plan to embark on a walking expedition round Bulgaria, the idea that we had first been suggested by a university friend Christo Wakarelski. Eventually the party had four members who walked the country in two months watching a lot of new and interesting things and places. That was my first opportunity to see the relief of the areas that had not been embraced by glaciation.

The polar regions were another tempting experience. In 1934 Bernadzikiewicz, Siedlecki and myself organized the first Polish expedition to Spitsbergen. My colleagues agreed to my proposition to try exploring the inner portion of Torell Land. To prepare for work in the adverse climate, I spent a winter in the Tatra mountains trying to produce a profile of the Kościeliska Valley that had originally been elaborated by Rabowski. The stay was the first test of my efficiency in the high mountains.

The several months we spent on Spitsbergen covering hundreds of kilometres on glaciers pulling sledges with food and equipment taught me endurance, self-control and determination to find ways out of even very grave troubles. The basic difficulty we faced was unavailability of maps. We had to work out strategies of making notes to be used for production of a map, which took us some 12 months after returning from Spitsbergen.

Stratigraphic observations were another important experience. While walking along the coast, I made a number of essential findings which facilitated my exploration of the land. I set out in the company of Henryk Mogielnicki. We were planning to enter the parts to which we had not been before. Having crossed the catchment area of the Finsterwalder glacier where we had been operating by then, we saw a mountain ridge lying beyond the other side of the huge Nathorst Glacier. I decided to reach it, although sledge was our sole equipment. We had no tent while our provisions could suffice for two days at the most. Climbing up the glacier took us a longer time than we had originally expected. It was dangerous as the glacier was intersected by numerous wide rifts, we had to cross over collapsing snow bridges. I wanted to reach a small pass through the ridge. I hoped to find some Jurasic outcrops there. On the way there were steep downcasts and snow overhangs. But the effort was well-worth making. I compiled a most complete profile of the Neocomian and of the entire Jurasic period. It was most representative of the whole of Spitsbergen. The fauna samples were taken from twenty or so horizons. Then I faced another problem: the overfold of the western part of Torell Land, neighbouring the Atlantic Ocean coast, built of metamorphized series of the Hekla Hoek formation on sedimentary series of the eastern part. The discovery was a sensation, as it showed that A. K. Orwin's theory of faulted structure of Spitsbergen was wrong. This incredible success came on the last day of our inland explorations. Going west on our way back to the main base, we approached the unknown slope of the Barzelius mountain. The sight of it surpassed all expectations. The huge wall showed an excellent example of Carboniferous overfold on the later series. It was an undeniable evidence that such overfolds could be found. The frost was very hard and I drew the profile with a hand getting more and more numb. For all the adverse circumstances, it was quite well done, I must say. The entirety of the material collected clearly indicated the folded structure of Spitsbergen.

The Spitsbergen experience taught me a lot. First, that the route of exploration should be well planned including designation of specific targets. Second, that all observations being made should be recorded at once, as it is unwise to hope for the reoccurrence of interesting objects. Third, that the notes should be promptly put in order right during exploration activities for the purpose of easy reference that may prove essential in deciding on what steps to make next. Consequently no effort can be spared to collect and analyze observations made while exploring the principal areas of interest.

The following years gave me opportunities of making other long voyages: through Siberia and China to Vietnam, to the United States, to India and the West Himalayas, along the Atlantic Ocean coast of France to Spain and further down to the central parts of the Sahara desert, to Senegal and South Africa. Then came trips to various European countries and back to Spitsbergen and finally to the Antarctic Continent. Wherever I went I always eagerly worked collecting materials that enriched my research experience.

I took all opportunities of foreign travel to see all climatic zones and get to know their properties as thoroughly as possible. I think I got all I wanted. I saw almost the whole of the world except Australia and South America, for the prospects of visiting these continents emerged too late when I was too tired to embark on another long voyage. The experience I had managed to accumulate was valuable enough. I drew on it later in my publications and while devising geological theories as well as for other research purposes.

Teaching was another important aspect of my pursuit of self-improvement. The experience began as early as the third year of university studies. I was a 22-year-old assistant then and had to run classes in geology for naturalists and geographers. A class lasted 2 hours plus a 15 minute introduction I was supposed to provide. That was my first ever experience of giving lectures. I also had to devise the syllabus. My professor's advice was confined to very general tips that the course should last 3 terms, covering the study of mineralogy and petrography, stratigraphic fauna and tectonics respectively. I had to select and compile the materials by myself. Tectonics represented the worst difficulty as there were no maps available. For absence of some other option, I did the drawing and copied the maps for the group of 30 students. I was also invited to give lectures for the Nicolaus Copernicus Society's Club of Geographers and Geologists. I was terribly scared before speaking to my respectable colleagues. I can still vividly remember my first talk at the Club. The subject was the Crimea. The approach I chose took the listeners by surprise. They had thought I would confine myself to geological problems only. I did begin with geology but then passed on to a discussion of the soils, agriculture and agricultural economy, raw materials, and next looked into some historical facts including selected aspects of the contemporary situation. The approach differed a lot from methods of analysis applied by Professor Stanisław Lencewicz who saw the whole of geography as geomorphology. The strategy I employed embraced things comprehensively, pointing out to their interdependencies, which was in line with my understanding of geography I have always advocated. For instance speaking at the meeting marking the jubilee of the Geographical Association in 1968, I began my lecture on the central Poland's region of Mazovia with remarks from the realms of geology and geomorphology and finished up with a discussion of the many wars and battles Mazovia saw over the ages. I employed the approach, among other publications, in the extensive contribution on the Arctic Ocean published in "Wielka Geografia Powszechna (The Great Universal Geography). There are reasons to believe that the contribution was well done, for it was praised both by Stanisław Lam (editor-in-chief of the publishing house) and Prof. Stanisław Srokowski who wrote a critical article on it.

I owe quite a lot to my participation in a variety of congresses, symposia, conferences, as well as to foreign travel and contacts with foreign visitors to Poland, all of which gave me opportunities to establish personal relationships with most of the world famous experts. Those acquaintances have proved very helpful especially in obtaining materials and resolving various local problems. Many relationships turned into friendships such as those I struck with R. F. Flint, R. W. Fairbridge, H. Faur, Mrs H. Alimen, K. K. Markov, E. V. Shaner. We carried on correspondence and exchange of photo-copies, a prerequiste of successful pursuit of research activities.

As I have remarked before, I saw my teaching activities as very important experience already when I had my first classes in geology. My productivity as an academic teacher became especially intense after I was conferred upon the degree of Professor of first, physical geography and then geology of quaternary.

I began giving lectures in the happy times when there were no obligatory syllabuses of the individual subjects, but only general recommendations regarding the desirable results of teaching. The Professors were free to decide on the subject matter of the given course and the number of hours to cover it. I chose a very heavy teaching load for geomorphology: a two years' course with 4 hours of lectures a week. Preparing the lectures involved long hours of concentrated effort. However, the course was exhaustive and the knowledge it conveyed to the students was much more than the generalities of the one-year's courses that came later.

I studied text-books and separate writings, I devised comparative plates and diagrams, made notes on hundreds of pages as well as relevant maps and regional studies. I was actually producing an extensive hand-written text-book of geomorphology and physical geography. The students would keenly and attentively listen to my lectures and take notes, but there was no one among them willing to produce a proper compilation of those materials to be run off on a duplicator. My numerous duties prevented me from doing the job by myself. However, the most important achievement was the creation of the subject matter to be taught to next years' students.

My experience of teaching geology of quaternary was very similar to that of lectures on geomorphology. Perhaps it was even more difficult as there were no sources or reference materials available for that line of study. I had to provide everything. It eventually turned out to be an entire volume of notes. It would take several years to put them in the shape required by potential publishers. Thus, as emergence of such prospects seemed to be the matter of years rather than months, I engaged in studies on separate subject areas, part of which I had begun exploring before. Owing to the said lectures, I had fully covered geomorphology and the quaternary seen in global terms. The follow-up activities for the lectures were class-room exercises and even more importantly specialist training field sessions. I do not like the type of exercises which are done "in vain", just for the sake of having some kind of students' activity during the classes. Such assignments are often revised and then quickly cast into a waste-paper-basket. They are very useful of course as far as teachers' convenience is concerned, for one can easily revise them, still they can hardly be regarded educational. As I wanted to have exercises based on tangible materials. I chose three sets of Prussian geological maps of the environs of Gdańsk, Szczytno and Łeba additionally representing the soil of these areas. Our treatment of the maps included adjustment of certain aspects of charting by the Polish standards on the scale of 1 : 25 000, which was followed by supplementing the maps with geomorphological, hydrographic and soil-related data, and finally designation of the modes of utilization of the localities. Next we would go to see the places and compare our theories with the real situation. The procedure was a model of the so-called preliminary physiographic treatment of an area, which could also be used for the purposes of planning. The future staff of the Geoproject enterprise, an auxiliary establishment envolved in the spatial planning projects were educated that way.

I wanted to have students' specialist training that could possibly involve pursuit of important research results. One of the projects we launched then was production of a detailed representation of the profile unfolding on the Vistula river banks. For that purpose I chose the most accessible stretch between Zakroczym and Wyszogród with the village of Mochty lying in its centre. Unlike the contemporary technique of making quarternary profiles, the job could not be done at once, just after watching the whole of the stretch. We had to do some digging. Having assessed the prospective advantages the optimum pursuit of the project might bring both in terms of teaching and research work I thought of organizing a field course for senior students. The university provided no subsidies for such projects then, but we were lucky to receive the offer of assistance from Mrs Antonina Halicka, Director of the Museum of Earth. She supplied us with the funds needed to purchase the equipment (spades, pickaxes, ropes, measuring tape, riddles and scales) and to cover the costs of accomodation. In return for this, we promised to supply the Museum with a profile of the Mochty bank of the Vistula. Twelve pairs of students set to work. Each of them was assigned a hundred meters long stretch to describe. Thus the description covered the continuous profile 30 meters in height and 1200 meters in length. The results were extremely interesting. In the first place we collected evidence demonstrating that the quaternary series were not continuous, but intersected by numerous erosive surfaces. Likewise sedimentation also showed absence of continuity. That was an important discovery that undermined the hitherto theories on continuity of quaternary profiles.

However, the principal motivation for building research arsenal is production of papers, articles treatises and other writings. But I do not mean the articles on subjects imposed by editors or other circumstances. I am referring to authors' absolutely independent production.

If I were to explain how such writings are created, I would say that they emerge from reflections and observations. They take shape gradually in consequence of the author's taking special interest in a problem or possession of a collection of materials on a particular subject area, in which the author becomes increasingly absorbed. Ideas and even individual sentences begin to occur long before one starts to write. In fact the work is often ready in one's mind when he sits down to the type-writer. Writing as such is just the recording of ideas that have already taken proper shape in mind. And this is hard work indeed as thoughts run and combine faster than words on the paper. Besides as you write for others, the text must be lucid and correct. It must also be compatible with principles generally adhered to in science. It is production of texts that confronts one with the requirement of exercising self--discipline, for the ability is a precondition of lucidity of a work and desirable reception by experts.

When the subject takes ultimate shape in the author's mind, he devises a plan of the work, and makes a list of chapters, which also involves a possible designation of parts into which the whole is to be cast. Then comes the most arduous stage: the setting of the contents. I usually began with drawings, for I do not see drawings as illustration of the text. On the contrary, it is the text that explicates the substance of the drawings. I always had to "draw" my works before writing them. The final treatment of the text was toilsome and time-consuming a job, sometimes it took more time than the writing of the first version. At some point of work on the text I tried to read it as a completely unfamiliar thing. The conclusions I drew from such critical reading served to make final emendation.

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The deadlines set by the editors caused additional strain as haste is an adverse factor in writing books and papers, which need time to become ripe for publishing.

There has been an aspect of my attitude to work that may appear to be a virtue while in fact it has been a fault. I tend to investigate problems too thoroughly which hinders speedy completion of work. Exploration of the particular subject-area generates too many associations and new ideas in my mind, which can hardly by crammed into one work. This led to too elaborate treatment of problems. For instance while dealing with the question of conditions in which loesses were formed, I could not resist the temptation of discussing the problem with regard to all continents, which undoubtedly was an interesting and unprecedented approach. I have always seen giving verbal expression to thoughts as wearisome and arduous stage of the creation. Besides, the wording of the original ideas usually falls short of the desirable degree of accuracy. Finding the proper words to convey the intended meaning often takes a lot of time too. I have always refrained from using difficult-to-understand, foreign words, the practice very popular with some authors who do not realize that such rhetoric obscures rather than explains things and is perceived as a mere sham of sophistication. To produce a final version of a text, I always had to sketch several drafts of it. The first was a rough outline, which I emended and supplemented. The product of the next stage was more congenial to the final shape of the text. It was read by my friends or colleagues. I always welcomed their critical remarks and comments, to which I referred while emending the text again. Sometimes I did the draft over a number of times as I knew that the author's understanding of a text need not necessarily imply the readers' comprehension of it.

Consequently the work assumed immense proportions, which gave rise to variety of difficulties and problems that hampered the progress of the writing. I was becoming weary with the work. Knowing the reason why the complications were ensuing, I tried to restrict my treatment of subjects, which, however, worked only in the case of regional studies.

A research methodology developed by one expert can hardly satisfy the requirements of the entire discipline or cover all of its branches in the present day circumstances of far-reaching specialization. I made this observation very early and thought of forming a team to cope with the complexity of research problems. Eight seemed to be the right number of its potential members. However, none of the existing research units had that number of specialized personnel. Luckily I was the head of both the Section of Quaternary Geology at Warsaw University and the PAS (Polish Academy of Sciences) unit engaged in these same studies. As I had always favoured linking the operations of the University and the PAS units, I managed to get the two institutions to pursue the same research programme. The manoeuvre enabled formation of a team with one supervisor that was able to cover almost all aspects of geology of quaternary. Such organization of the research work in Poland, the country whose area is predominantly (as much as 90 per cent) built of quaternary deposits was perfectly legitimate.

In 1958 the team was ready and began productive operations. It included geologists and geomorphologists, a palaeobotanist and palaeozoologist as well as specialists who could define absolute age by means of the use of fluorine-apatite method. The only thing we lacked was the equipment needed to employ the C 14 age designation technique, which was not available in Poland then.

Such organization of work gave results very soon, as it showed that experts working together in one team better understood the need for collective work towards the established targets. We could see that team work was more productive and gave better results than researches pursued individually by otherwise eminent specialists. By 1961 the unit was fully organized and its operations were presented at the INQUA Congress that was held in Warsaw then. It was a sensation that aroused great interest and earned me considerable appreciation. Soon similar units were formed in the United States, England, Sweden and many other countries.

Unfortunately the organizational re-arrangement and complete separation of university and the PAS units disrupted the co-operation. The team split and neither part was self-sufficient and consequently uncapable of pursuing interdisciplinary studies. The experience showed that administrative — organizational mechanisms can disunite researchers and affect their work.

To wind the present story up let us identify the constituents of the research arsenal applicable in the field of science I have been exploring. According to my experience it involves two principal groups of qualities. They are on the hand knowledge, experience and observations and on the other hand, personal properties: talent, diligence, industry, inquisitiveness, determination and patience, all of which being perhaps even more important than the first group of values.

There seems to be another vital question looming in the context of the present argument. What are the preconditions of emergence of a "school?". I should say it is first of all an academic teacher providing proper example of behaviour and attitude to work. Next it is formation of a research arsenal, including techniques of using the knowledge one possesses for variety of purposes. The students who grasp these principles, show capacity of creating unconventional and novel ideas, as well as acquire the skill of using their masters' methods in their own undertakings may well become research workers, while those who can merely draw on the existing patterns will always remain journeymen of science, being useful for propagation and testing of achievements of research work rather than providing significant contribution to advancement of science.

С. З. РУЖИЦКИ

Как была создана моя научная лаборатория

В начале своей статьи автор определяет понятие научной лаборатории, показывая её не только в механических категориях, но прежде всего в интеллектуальных и умственных. Далее описывает красочно и увлекательно

свою жизнь: детство, молодость, зрелую профессиональную жизнь. Читатель с интересом проследит, как наука станет профессиональной и, можно сказать, даже жизненной страстью автора.

С дидактической точки зрения, весьма ценными являются описания того, как возникали, создавались и совершенствовались не только руководимые извне, но и самостоятельно, глубокие знания и опыт в области геологии. Подводя итоги, автор статьи перечисляет составные элементы научной лаборатории, обращая особое внимание на индивидуальные черты научного работника, такие как умение, работоспособность, пытливость и упорство во время собирания сведений необходимых для разъяснения данной проблемы.

S. Z. Różycki

Como elaboré mis métodos de trabajo científico

En la primera parte del artículo el autor explica qué es lo que entiende bajo el concepto de métodos de trabajo científico, definiéndolo no sólo en categorías mecánicas sino, ante todo, en las intelectuales, mentals. Más tarde, de manera pintoresca e interesante, el autor describe su vida: su niñez, su juventud y su ya adulta vida profesional. Nos enteramos cómo se desarrolla en el jóven su interés por la geología, notamos como dicha ciencia se vuelve pasión profesional y hasta vital del autor. Las descripciones del surgimiento y perfeccionamiento, tanto dirigido como individual, del profundo conocimiento y experiencia en el campo de la geología, poseen un gran valor didáctico. Resumiendo lo escrito en el artículo, el autor enumera los elementos que determinan los métodos de trabajo científico haciendo hincapié en los rasgos individuales del trabajador docente, su capacidad, laboriosidad, persicacia y persistencia en el trabajo de investigación indispensable para la explicación de los problemas científicos.

RÓŻYCKI Zbigniew, Stefan, member of the Polish Academy of Sciences, Professor of Warsaw University, geologist, participant of numerous research expeditions, inter alia, to Spitsbergen, and the Antarctic Ocean (Bunger's Oasis), to South Africa, Punjab, Central Sahara. Honorary member of international congresses, International Quaternary Association (INQA).

P.S.

The translator should like to offer his most cordial thanks to Assitant Professor Miroslaw Bogocki of the Section of Geomorphology at the Department of Geography and Regional Studies of Warsaw University for his advice on the usage of some professional terms.

The Quarterly „Dydaktyka Szkoły Wyższej"

by

ZOFIA KIETLIŃSKA

Among the rich Polish literature dealing with the theory and practice of teaching in institutions of higher education, the scientific quarterly „Dydaktyka Szkoły Wyższej" published by the Państwowe Wydawnictwo Naukowe for the last thirty years merits special attention.

The periodical originated as a publication of the then Interuniversity Institute of Research on Higher Education of the then Ministry of Education and Higher Education in January 1968.

Following several reorganizations of the Institute and the Ministry, while retaining the original initiators and organizers of the Quarterly, the periodical has been published as the organ of the Institute of Scientific Policy, Technological Advance and Higher Education, Ministry of Science and Higher Education. Its current name dating back to 1978 is „Dydaktyka Szkoły Wyższej" — a quarterly dealing with fundamental problems of higher education.

The assumed image of the periodical was initially concerned with didactics which, considered of primary importance, could not leave aside related issues such as educational and curriculum development problems.

Gradually the Quarterly's range of subject matters expanded, currently covering almost all problems of higher education, its organization, structure and economy with emphasis on the broadly conceived higher education teaching problems.

Basically, the Quarterly deals with many subject matters: individual issues contain various aspects of teaching at the university level although there is always a "leading subject matter" as, for example, the system of enrollment, or specific methods of various disciplines, or educational forms, or adaptation processes in the first year of studies etc.

Originally, the structure of the Quarterly covered four basic areas:

1. Studies and research reports.
2. Problems and discussions.
3. Reviews and bibliographical notes.
4. Reports and the chronicle.

The layout has not been changed till today only with one specific area being added in 1978, namely Pedagogical Growth of University Teachers inserted before the section Reviews and Biographical Notes.

Numerous and wide-ranging discussions of those years covered various factors of university student training effectiveness with special emphasis on teaching personnel qualifications. It was at that time that special attention was focused on the fact that scientific qualifications in the field of knowledge of a given area of teaching are not enough to transmit that knowledge properly, or to perform educational functions. The need for an adequate pedagogical attitude and the necessity for each teacher to have an adequate body of knowledge of various aspects of the theory of higher education pedagogics (the theory of didactics, specific methods, psychology, sociology etc.) were widely accepted.

To meet that need, the above-mentioned new section was introduced, of a textbook character, to help university teachers to improve their own educational workshops.

The first section of the Quarterly, Studies and Reports on Research is assumed to be of a scientific character. It contains studies or theoretical considerations dealing with broader theoretical problems that form wider macroscale complexes such as "Extramural Studies — Obstacles and the Need for Perspectives", "Didactic Means and Their Modernization", "The Institution of Higher Learning as an Educational Environment", „The Evolution of a Model Economist Training in Poland", "The Theory of Programmed Instruction", "The University Enrollment System" etc.

The Report on Research is a collection of precisely documented reports on sociological, pedagogical, psychological and other research within the subject matter of higher education and conducted partly by university pedagogical institutes of various kinds or random teams of scientific workers.

So usually this is research of a small-scale character dealing with a selected university, department or type of studies (eg. research on graduates of a university or department, adaptation processes, enrollment system and prognostication of its components, effectiveness of various methods of teaching etc.).

The research findings on a macroscale, i.e. those dealing with the whole system of higher education, conducted by the Institute are, in principle, not published here because of their bulk. They are to be found in separate publications issued in various series by the Institute (such as for example nationwide research on students published in Student 1977).

Articles presented in Section 1 have three-language summaries (Russian, English and French).

Section 2, Problems and Discussions is like Section 1 of a research and theoretical character but on a micro scale. It deals with more detailed individual problems (eg. methods in classes in a chosen discipline) or groups of detailed problems (eg. the role of course and graduate degree practices in agricultural studies).

Section 3, Pedagogical Growth of University Teachers is of a didactic character and plays a kind of a textbook role.

Section 4, Reviews and Biographical Notes has been intended to popularize, first of all, newly-released Polish publications of special value on higher education and to inform about valuable publications in that field issued abroad in socialist and capitalist countries.

The last Section, Information and Chronicle plays a similar informational role. It contains a rather comprehensive selection of information on various events, important for the development of higher education which took place in this country and abroad, at international symposiums, multi- and bilateral conferences etc. The information, usually presented as articles, deals with all essential details concerning the contents, organizers and participants of these events. To give a foreign reader an idea about the contents of the Quarterly, the Table of Contents is published in three languages: Russian, English and French.

The Quarterly was intended to serve all university teachers both older and more experienced as well as younger and the youngest. It was to provide a stimulus to boost theoretical and scientific inquiries concerning the recently developed theory of higher education pedagogy, its improvement and practical adaptation, to stir innovative teaching activity. It was to give an impulse to pedagogical research on teaching processes and the operation of the higher education system.

Although the Quarterly is printed only in more or less 1500 copies, which does not actually help to stimulate the teaching profession at the university level, the scanning of several issues of Dydaktyka seems to offer some optimism. The list of the authors of the articles proves that the most prominent Polish pedagogical theoreticians and practitioners in the field of higher education have shown interest in the Studies and Problems Section. Quite frequently in the last 20 years outstanding Polish educators were taking the floor in the Quarterly. Among them were professors: Jan Szczepański, a world-famous sociologist; Bohdan Suchodolski, a prominent theoretician and educator; Wincenty Okoń, the author of the first scientific monograph on the higher education didactics; Czesław Kupisiewicz, a theoretician in programmed instruction; Franciszek Leja, a noted organizer of young teacher training; Janusz Tymowski, an expert in engineer training; Jan Bogusz, Marian Obawa and Zofia Kietlińska, the authors of the first monograph dealing with the didactics and technology; and the untiring spokesman for educational techniques and innovations in teaching, Franciszek Januszkiewicz.

Some interesting and valuable papers written by young university teachers have become quite frequent in this Section lately. They usually present their experiences in updating their teaching methods. There is also an increasing number of research findings given by young research workers.

All these publications prove that in the late 1970s there began growing interest of university teachers in the development of the pedagogical theory, modernization of their own teaching methods, research on various elements of didactic processes and in drawing conclusions that would optimize the performance of the university's educational function.

In my opinion „Dydaktyka Szkoły Wyższej" has been one of the activators and cathalysts of creative changes in the theory and practice of higher education.

З. КЕТЛИНСКА

„Дидактика Высшей Школы"

Статья информирует об издаваемом в Польше с 1968 года квартальном научном журнале посвященном проблематике высшего образования в целом, с особенной доминантой, направленной на оптимальное осуществление дидактическо-воспитательных процессов и на теоретические аспекты дидактики высшей школы.

Статья показывает структуру номеров журнала и их деление на:

1. Вопросы обучения и ответы об исследованиях;
2. Проблемы и опыт;
3. Педагогическое усовершенствование вузовских преподавателей;
4. Рецензии и библиографические заметки;
5. Сообщения и хроника.

Вкратце обсуждается находящаяся в статьях проблематика.

Автор указывает на функции, которые исполняет журнал:

1) научно-теоретическая;
2) дидактическая;

3) популяризаторская;

4) информационная.

Называя многих выдающихся польских педагогов — авторов журнала и перечисляя многочисленные исследования о процессах обучения, которые ведутся в разных вузах и печатаются в журнале, автор констатирует факт, что в вузовской среде „Дидактика Высшей Школы" играет роль стимулятора оживляющего процессы обучения. Журнал издается тиражом 1000 экземпляров; в нем помещены резюме статей первого раздела на трёх языках: русском, английском, французском.

Z. KIETLIŃSKA

Didáctica de la escuela superior

El artículo presenta la información sobre la editada en Polonia a partir de 1968 Revista Científica Trimestral, dedicada a los problemas de la enseñanza superior, cuyo interés primordial está encaminado hacia la óptima realización de los procesos didáctico — educativos y los aspectos teóricos de la labor didáctica en los centros de enseñanza superior.

El artículo en cuestión habla de la sistematización de los sucesivos números de la revista y de su división según el contenido en:

1) estudios e informes sobre las investigaciones realizadas,

2) problemas y experiencias,

3) perfeccionamiento pedagógico de los profesores académicos,

4) reseñas y notas bibliográficas,

5) informaciones y crónicas,

como también resume el temario que éstos abarcan.

La autora hace hincapié en las funciones de la Revista: 1) científico — teórica, 2) didáctica, 3) popularizadora, 4) informativa. Enumerando los apellidos de los más eminentes pedagogos polacos, autores de artículos, y citando los resultados de investigaciones concernientes a los procesos de enseñanza en varias universidades, la autora constata que la Revista desempeña en el ambiente universitario un papel estimulante en cuanto a la vivificación de los procesos de la enseñanza. La revista en cuestión, cuya tirada es de 1000 ejemplares, contiene los resúmenes de artículos del Primer Capítulo y del Indice en tres idiomas: ruso, inglés y francés.

Życie Szkoły Wyższej 1986

International Magazine of the Socialist Countries „Sowremiennaja wysszaja szkoła"

by

FRANCISZEK JANUSZKIEWICZ

In 1987 fifteen years will pass since the first appearance in Warsaw of an international magazine of socialist countries, published in Russian and entitled "Sowremiennaja wysszaja szkoła". In July 1973 the first issue (Nos 1 - 2) of this quarterly appeared, which, regularly published, became an important platform for the exchange of the results of scientific investigations, studies and information concerning higher education.

Below are a few words of information about the creation of the magazine. The initiative came from Poland in the course of preparations for the IV Conference of the Ministers of Higher Education. Professor H. Jabłoński, speaking in favor of strengthening and the concretization of cooperation between socialist countries in the field of higher education, proposed the creation of a joint scientific magazine. Despite the fact that the idea was proposed informally, it gained the support of a number of delegations. This enabled the Poles to prepare the concept of the magazine and work during various international conferences for the project's implementation in 1971 for instance, during a seminar in Bulgaria dedicated to technical dydactic tools, which were at that time gaining an increasing number of supporters in institutions of higher learning. Others opposed such tendencies and wished to have a periodical dedicated only to the socialist upbringing of students. A wise compromise resulted in the approval of a universal magazine dealing with all the problems of higher education. It was then that the project of its title was agreed upon: "Sowremiennaja wysszaja szkoła".

The first decision concerning the publication of a quarterly under this title was made during the VII Conference of the Ministers of Higher Education of Socialist Countries, held in Prague in 1972. In recognition of Poland's initiative in the creation of the magazine, our country was given the task of its implementation.

Already in December of 1972 the first session of the Editorial Council of "Sowremiennaja wysszaja szkoła" took place. The Council convened in the Senate Hall of Warsaw University. In May 1973 a second session took place in the Nieborowo Palace. During both meetings details were worked out of the forms of cooperation of the countries — co-publishers of the magazine. Those included (in Russian alphabetical order): Bulgaria, Hungary, GDR, Cuba, Mongolia, Poland, U.S.S.R., and Czechoslovakia. Vietnam joined in later. Those nine countries enjoy the status of a country-co-publisher of "Sowremiennaja wysszaja szkoła". This is not only a rhetorical term. It means that each country-co-publisher has equal rights in the quarterly.

The Polish Minister of Science, Higher Education and Technology, prof. Jan Kaczmarek, who at that time held this function, appointed the staff of the Editorial Council of the magazine, which was to be housed in the Institute of Scientific Policy and Higher Education in Warsaw. Prof. Zofia Kietlińska was made editor-in-chief, and Franciszek Januszkiewicz was made the editorial secretary. Prof. M. Kuzniecow from Moscow became a member of the Editorial Council, which was of great importance in the first period of the making of the magazine because of the lack of experience on the part of Poles in publishing a quarterly in Russian. During this period the editor of "Wiestnik wysszej szkoły" (an organ of the Soviet Ministry of Higher Education) — T. J. Samochwałowa — regularly came to Poland, contributing to the high language quality of the new periodical.

It is worthwhile recalling that the first members of the Editorial Council of "Sowremiennaja wysszaja szkoła" were, on the side of the PPR: professors Czesław Kupisiewicz (pedagogue) and Jan Legowicz (philosopher and editor-in-chief of "Życie Szkoły Wyższej"). Among the members of the Editorial Council from other socialist countries were many renown professors, makers of educational policies and editors-in-chief of various monthlies — organs of the ministries of higher education of those countries. Just as an example I shall mention prof. N. F. Tałyzina from the M. Łomonosow's University in Moscow, prof. Indra Rinczen, pro-rector of the Agricultural Institute in Ułan Bator, prof. Żeczo Atanasow, pro-rector of the K. Ochridski University in Sofia, prof. Endre Zibolen, the then director of the Pedagogical Institute of the School of Higher Learning in Budapest, prof. Hans-Jurgea Schulz, director of the Central Institute of Higher Education in Berlin, prof. Iwan Serdula, director of the Department of Literature and Russian Language at the J. A. Komeński University in Bratyslawa, or the departed prof. A. J. Bogomołow from the Ministry of Higher Education in the Soviet Union. It is impossible to list all the names, but one should mention that among the eighteen members of the Editorial Council, eight persons have been fulfilling their social functions in the Council for the past 15 years.

Following the retirement of prof. Z. Kietlińska, prof. Jan Kluczyński become editor-in-chief of "Sowremiennaja wysszaja szkoła" and at the same time a member of its Editorial Council. Prof. Kluczyński is the director of the Institute of Scientific Policy, Technological Progress and Higher Education in Warsaw.

The Editorial Council gathers once a year (in the beginning, before the periodical's stabilization, it convened twice a year) in the respective co-publishing countries.

Members of the Editorial Council, apart from the plenary sessions, organize articles, information and reviews for the magazine and only they can recommend the texts of authors from their own country to be published in "Sowremiennaja wysszaja szkoła".

During the plenary sessions, the Editorial Council evaluates the substantial and editorial level of the periodical, it determines the planned framework of publications for approximately the next two years and the program of events for the nearest year.

One has to add that "Sowremiennaja wysszaja szkola" is active not only in publishing. The periodical regularly organizes readership conferences, during which the participants discuss the achievements and especially worthy publications, as well as recommend to the editorial staff new subjects to be discussed by the magazine, they suggest the authors or new forms of publication for instance editorial discussions, interviews with renown scientists, review articles, which would at the same time constitute a summary of a series of articles on a given subject published by the magazine.

So far such readership conferences have been organized in Moscow, Prague, Budapest, Ułan Bator, Berlin, Sofia, Havana and Hanoi. Such a conference is under preparation now in Warsaw.

In addition, the editorial staff organizes (every two years, between the Meetings of the Ministers of Higher Education of Socialist Countries, which now take place every two years) international scientific seminars. Among its participants are various specialists, some members of the magazine's Editorial Council and educational politicians from the country which organizes the seminar. So far five seminars of "Sowremiennaja wysszaja szkola" have been held: in Berlin (directions of the development of higher education in socialist countries and studies in this field), in Vilnius (new methods and technical dydactic means in higher education), in Bratyslava (socialist education of student youth), in Spala (near Warsaw) (the planning and prognosis for the development of higher education in socialist countries), and in June 1986 in Sofia (the development of higher education in socialist countries in the light of the documents of the recently held congresses of the communist and workers' parties).

After each seminar, "Sowremiennaja wysszaja szkoła" proclaims a series of publications on a given subject. Sometimes this subject becomes a regular section of the magazine. It is also discussed during meetings of the Editorial Council, since during each session one day is set apart for a substantial discussion on a previously planned subject regarded by the Council to be of special importance topically (for instance during the XVIII session of the Editorial Council which took place in Ulan Bator the subject of discussion was: The role of higher education in the conditions of the contemporary scientific-technical revolution).

In Warsaw, the permanent editorial staff (prof. J. Kluczyński — editor-in-chief, dr F. Januszkiewicz — the responsible editorial secretary, dr W. I. Worona — member of the Council) edits the basic version of the periodical in Russian. It is published by a section of the State Scientific Publishing House in Cracow, directed by Władysław Negrey, who from the beginning of the magazine is actively engaged in securing for "Sowremiennaja wysszaja szkoła" all possible editorial and printing facilities.

The Russian language version is very important because, starting from 1975 (following the decision of the IX Conference of Ministers of Higher Education in Havana), "Sowremiennaja wysszaja szkoła" is paralelly published in Spanish in Havana. The Spanish language version (entitled "La Escuela Superior Contemporanea") is widely distributed especially in Latin America and Africa, but also in North America. The editorial office in Warsaw prepares two typescripts: one is given to the publishing house in Cracow, and its copy is received by Havana, where it is urgently translated into Spanish and published in a form identical to the basic Russian-language version.

Starting from 1982, there appears in Hanoi a Vietnamese — language version of the magazine. Due to poligraphic difficulties and the specific needs of the local scientific community, Hanoi publishes thematical series books, which present a selection of articles which have appeared in a few issues of "Sowremiennaja wysszaja szkoła".

It is thus a magazine published in about 8 thousand copies (taking into account only the Russian and the Spanish language versions) which reach, through subscription and inter-library exchange, to more than 60 countries and to many international organizations interested in the problems of higher education. One should add that the U.S.S.R. subscribes in Poland to more than half of the magazine's copies issued in Russian.

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In 1985 the magazine celebrated a small, but satisfactory anniversary — the publication of the fiftyith number of "Sowremiennaja wysszaja szkoła". This means that up till then the magazine published about 66 thousand typescript pages. This included scientific dissertations and study reports, broad information concerning the educational policy of socialist countries and important events in higher education, reviews of books and scientific magazines. Each year, the periodical publishes about 1300 pages of further manuscript from various countries.

"Sowremiennaja wysszaja szkoła" publishes not only texts submitted by members of the Editorial Council from nine countries-co-publishers of the magazine. It also publishes articles from other socialist countries, for instance from Rumania, Yugoslavia, the Korean People's Democratic Republic, Laos. The magazine willingly accepts articles from developing countries which have chosen the path of socialist transformations. The magazine also publishes some UNESCO articles and reviews of books published by the UN organizations, propagating international understanding, promoting science, education and culture.

Starting from 1973 (that is, from the VIII Conference of Ministers in Ułan Bator), a separate issue of "Sowremiennaja wysszaja szkoła" dedicated to the basic materials of a given session, appears after each Session of the Ministers of Higher Education of the Socialist Countries. This is important, since thanks to this, the achievements of the particular sessions of ministers become known to the public, whereas the materials published by the periodical clarify not only the educational policies of countries participating in the Ministers' Sessions, but they also contain the newest data and their interpretations characterizing the state of education, as well as the main directions of its development, and those educational priorities, which are determined by a given socialist country according to the planned social and economic development of the country.

One can state with all certainty that today no one can write competently about the development of higher education in the socialist countries (both in particular countries and in the entire socialist community) without reaching form what has become a source of information for the past fifteen years, that is, for "Sowremiennaja wysszaja szkoła".

This magazine deals with all the problems of higher education. Those include both: the communist upbringing of students and the development of modern university dydactics, especially the progressive direction which includes modern educational technologies and new technologies of pedagogical information. They also embrace problems connected with the development of scientific studies at universities, and the scientific studies of students. The magazine also discusses important problems of the modern philosophy of education, for instance with education for the future, or with the concept of permanent education and its implementation within the university. It deals with problems of the methodology of education in institutions of higher learning, with self-education and with new solutions concerning the program and organization in particular countries and universities, for instance in the selection of educational material and academic textbooks.

The socialist economy is a planned economy. This gives rise to the not only theoretical questions concerning the form of the planned development of higher education, and the adequacy limits of this planning in relation to the employment needs of a particular country, as well as the resulting "overabundance" of qualified people and their value in a socialist society, which guarantees work to all citizens. This in turn raises the question of the scientific methods of predicting the development of educational systems, and so forth.

Right now, "Sowremiennaja wysszaja szkoła" tries to implement, after a few years of preparations, the concept of issuing a multiple-language dictionary of higher education terminology. This lexicon would serve not only the translators of scientific works, but would also be helpful to scholars in the reading of foreign language books, to interpreters during international scientific conferences, and to the editorial staff of "Sowremiennaja wysszaja szkoła". The magazine started publishing the first texts concerning the dictionary and opened a separate section dedicated solely to this subject, regarding it as an important scholarly enterprise, which would promote international cooperation.

In conclusion, one can say that "Sowremiennaja wysszaja szkoła" — the international magazine of socialist coun-

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tries, subordinated to the Council of Ministers of Higher Education of Socialist Countries, is an important element of this cooperation. It promotes understanding and friendship, propagates information about higher education, especially in the socialist countries concerning both achievements and new forms of the cooperation of socialist countries in the noble and hopeinspiring area of education, of higher learning and continuous instruction.

The magazine, engaged on the side of the values of socialism, serves at the same time the cause of international understanding in scholarly circles and its cooperation in dealing with the global problems and dangers of the contemporary world.

F. Januszkiewicz
The Editorial Staff of
„Sowremiennaja wysszaja szkoła"

Ф. ЯНУШКЕВИЧ

Международный журнал социалистических стран „Современная высшая школа"

В 1973 г. начал выходить из печати общий ежеквартальный журнал социалистических стран под заглавием „Современная высшая школа" („Contemporary Higher Education"). Журнал издается в силу договора между девятью социалистическими странами: Болгарией, Чехословакией, Кубой, Монголией, ГДР, Польшей, Вьетнамом, Венгрией и СССР, санкционированного решением постоянного совета министров высшего образования социалистических стран. Журнал „Современная высшая школа" является органом этого совета.

Журнал издается на русском языке в Варшаве, а с 1975 г. выходит также в Гаване на испанском языке (под заглавием „Education Superior Contemporanea").

Больше, чем 60 стран света являются подписчиками журнала.

В своей статье ответственный секретарь редакции делится сообщениями о 15-летней истории „Современной высшей школы", о круге её тематики, а также о многочисленных редакционных инициативах. На страницах журнала печатаются статьи посвященные всем проблемам высшего образования: от политики социалистических стран в области образования до проблематики планирования и прогнозирования развития высшего образования в социалистических странах, а также о проблемах воспитания студентов, о новых тенденциях в дидактике высшей школы, о реализации идеи непрерывного обучения. В журнале имеется раздел сообщений и рецензий.

После каждого совещания министров высшего образования социалистических стран, которое происходит каждые два года, выходит из печати номер журнала целиком посвященный основным материалам совещания.

Адрес журнала: 00-046 Warszawa, ul. Nowy Świat 69
telex 812285 pl

F. JANUSZKIEWICZ

Revista Internacional de los países socialistas „Sowremiennaja wysszaja szkoła" (Escuela Superior Contemporanea)

En 1973 se comenzó a publicar la revista trimestral común de los países socialistas titulada "Współczesna Szkoła Wyższa" ("Contemporary Higher Education"). Dicha revista es editada en base al acuerdo de nuve países socialistas: Bulgaria, Checoslovaquia, Cuba, Mongolia, RDA, Polonia, Vietnam, Hungría y la URSS, siendo legalizada por decisión del Consejo Permanente de Ministros de Educación Superior de los Países Socialistas. La revista en cuestión es órgano de dicho Consejo.

La revista publicada en Varsovia en ruso, tiene a partir

de 1975 su reedición en el idioma español, titulada "Educación Superior Contemporánea", editada en la Habana. La revista en cuestión es divulgada en más de 60 países del mundo.

El secretario responsable de la redacción informa sobre la historia de "Sowriemiennaja Szkoła Wysszaja" (que data 15 años), sobre el temario que abarca la revista y las múltiples iniciativas de la redacción. En esta revista se publican artículos concernientes a todos los problemas de la enseñanza superior comenzando por la política educativa de los países socialistas, los problemas de la educación del estudiante, las nuevas tendencias didácticas en la escuela superior, la aplicación práctica de la idea de la enseñanza permanente, incluyendo hasta la problemática de planificación y pronosticación del desarrollo de la enseñanza superior en los países socialistas. Esta revista trimestral posee una amplia sección de informaciones y reseñas.

Tras cada encuentro del Consejo de Ministros de Educación Superior de los Países Socialistas, que tienen lugar cada dos años, se publica un número especial de la revista dedicado en su totalidad a los materiales básicos del Consejo.

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JANUSZKIEWICZ Franciszek, editor-in-chief of the quarterly "Dydaktyka Szkoły Wyższej", research worker of the Institute of Science Policy, Technological Progress and Higher Education.

Education and Work in Poland, Contributions by Jan Kluczyński, Bikas C. Sanyal, Kržysztof Opolski, Włodzimierz Włodarski. Edited by Jan Kluczyński, Bikas C. Sanyal. PWN — Polish Scientific Publishers — UNESCO, Warsaw 1985, 307 pp. Reviewed by JAN LEGOWICZ

Studies on problems relating to education and Polish labour market's saturation with skilled personnel attended by increasing difficulties in the rational employment of their qualifications have been launched to invent means of arresting these disadventageous trends, to point out to the conclusions employees should arrive at, and to identify the consequent expectations towards the existing system of education. In this context, the study *Education and Work in Poland*, a product of team work with contributions by experts in this field, edited in collaboration with International Institute for Educational Planning in Paris, and Institute of Science Policy, Technological Advancement and Higher Education in Warsaw appears to be a report on education and utilization of vocational qualifications of young graduates of secondary and higher education for the purpose of creation and pursuit of social and economic advancement both in the framework of entire national economy, and individual industrial establishments, the task to be tackled by economists and engineers respectively. Thus the book might be best described as a study on educating and management of skilled personnel now and in the future. The book, its tenor powerful and marked by profound concern may well be called a report, for it provides more than an account of facts about the diffusion of difficulties over the areas that need co-operation of schooling and proper, creative and rational management of manpower, as well as the mushrooming problems Polish schools and employees are confronted with, so as the society as a whole that must not be passive or under-informed but should co-operate with the educational system and participate in the undertakings aimed at proper utilization of workers' capacity and qualifications.

The authors focus on the problem of the functions and targets of training and education in the broad sense of the term in preparing an individual for the pursuit of his future vocational activities. In our times education and culture have ceased to be "pure realms of spirit" detached from or contrary to the so-called "dirty life", and are gradually becoming important aspects of vocational work and social activeness. This observation represents an answer to the question that is sometimes asked: shouldn't we view education and culture as if they were respectively investments and consumer goods. For indeed education and vocational training no longer mean professional training of the so-called labour force but they involve enormous scope of social determinants and aspirations held by individuals, formation of personality and creation of "social sense" in human beings having broader intellectual horizons, showing concern about not just the ways of earning their livelihood but also the kind of life they may have. Thus education and vocational training are confronted with new tasks and targets, model values determined by altering objectivity, its multidimensional interpretations and the experience individuals go through as unique entities, as well as by their aspirations, feelings, emotions, motivations and commitment to actions they indulge in and things they are held responsible for as members of particular societies and civilizations. Therefore the principal task to be pursued seems to be educating people in the spirit of functional competition to be based on utilization of an individual's capacities which gives him the sense of "being better" consequent upon providing "better-than-others-do" performance in the framework of his social role and not just because of holding a "superior" or "inferior" position. It is to be education coming both from "inside" and "outside", in which transformation of society taken as a whole is attended by transformation of individuals' personalities. Thus it cannot be education aimed at achievement of one specific target, i.e. such which could enable a graduate taking on a job right after completing a course of learning at school. It is to be education for work and not for a job, education preparing for involvement in a particular field of vocational activities, but not for doing work at a particular work-post. Hence the need for indispensable theoretical foundations to be acquired, and forwardlooking approach to the making of educational policies for both the former and the latter prevent one from developing purely defensive attitudes which in turn neutralize the shock of unexpected situations. Therefore undesirable is adoption of purely utilitarian approach to education, as "the diploma" appears to be merely an asset needed to take on the tasks compatible with the requirements of economic and cultural evolution in consideration of the opportunities of optimum utilization of one's capacities and qualities of character This challenge must therefore be taken up by the educational system and responded to differently than before. Educators should show concern about a human being not just an employee.

The teaching of the skills needed for the pursuit of vocational activities should be part of education preparing one for mature life. It is to be the educational system that might be perceived and maintained as a quality that is independent and tantamount to the good of human personality and the good of human being which gives objective meaning to his vocational qualifications. These requirements imply the enormous responsibility of the model of education that is expected to produce not a "finished" and "omniscient" individual, but a person open to education, work, culture and life in general.

This educational system would show a tendency to spontaneous accomodation to social economic and civilizational evolution as well as to the challenges stemming from the necessity of providing humane performance among human beings and for human beings. This in turn confronts us with the problem of individual's position and situation vis-a-vis school on the one hand and work on the other hand, which is dealt with in 2 paragraphs of the next chapter of the book: on the ways to the careers of a technician and an economist in which the authors attempt to identify the rules governing the choice of the given line of education and consequently the future career.

In Poland, the probability of passing university entrance examinations is frequently determined by the choice of the type of secondary education to be taken up. The graduates from general secondary schools preparing for university seem to be more advantaged in this respect than those completing education at upper level vocational schools which provide training for work rather than university studies. The longstanding experience also shows that peasants' and labourers' children tend to choose education at lower level vocational schools while children of the intelligentsia prefer general secondary schools. Such decisions are infequently determined by the parents' choice of job and education they have. While the perception and assessment of the standard of vocational training provided by schools varies according to the type of job one has learnt to perform, the type of school one graduated from, the number of years on the job, degree of compatibility of the kind of work one is engaged in and vocational education he has acquired at school as well as the type of work done at the given post. The work done by graduates of upper level vocational schools is given favourable evaluation by their superiors though they sometimes air some critical remarks on education provided by schools. This criticism and other remarks often prove to be very useful, as they concern such vital matters as overall impact schools have on their graduates, the young employees' first experience of the work establishment's objectivity, and its consequences whether it be growing dedication to the job or decision to quit. It is to be noted that both the former and the latter may bring about undesirable consequences and involve the employees' mistakes.

As inquiries demonstrate, the way to the career of the economist is special in many respects. It is frequented by increasing numbers of women, large proportion of labourers' children, few persons from peasants' families and quite many students of evening and extramural courses. All these categories show poor rather than deep awareness of their own motives for seeking the career, the choice of studies being frequently a matter of coincidence or consequent upon the kind of education received at school, which considerably affects also vocational training as such, the start of vocational career, as well as the relationship between the choice of job and the employees' salary claims, interests, aspirations or even talents. All this necessitates critical evaluation of numerous aspects of economic education, its general principle, tasks, standards and prospects. The authors hold the view that research results in this field indicate the existence of "considerable vocational mobility" of economists which clearly varies among the individual employees. Analyses of the progress of vocational careers of economists show that they are governed by the rule of linear vocational evolution, meaning reaching out higher and higher up, pursuit of opportunities of advancement (mostly reflecting determination to become better situated) effectuated by the changing of employers or work posts, which frustrates full utilization of vocational competence that is activated only when something is found "worthwhile". This last policy upsets effectiveness of qualifications possessed that are reinforced only when new work requirements emerge on the vertical, upwards directed line.

These reflections and analyses mostly concerning education rather than employment, are followed in the book by discussion of the problems relating to work and pay, which includes such issues as the outline of the principles underlying the employment and reward policy as well as employment and types of jobs performed by economists and graduates of upper level vocational schools. This subject area involves in the first place the problem of the policy of sound employment which appears to be a precondition of: optimum utilization of labour resources, the scaling-down of the wasteful use of work hours, and preventing work disturbances. The challenge employment policy makers seem to be confronted with is how to provide for compatibility of job offers with the potential employees' competence, abilities, interests and motivations. All this is clearly related to pay policy, diverse sizes of reward for work, and criteria governing the setting of the size of pay. The argument is illustrated by tables and statistical data regarding problems relating to work complexity whose arduousness and responsibility are reflected in the size of pay. This information-filled chapter appears to be an important contribution to the presentation of enormously complex subject area of the relationships between the factual amount of work done by an employee and the real reward for it.

The following chapter deals with the problems relating to manpower resources management. The authors are here concerned with social and economic determinants and measures of utilization of qualifications and look into the issues relevant to employment of technicians' and economists' vocational skills. In this connection a somewhat imprecise theory is advanced (most probably consequent upon the experts' tendency to approach things in terms of their disciplines' findings) that effectiveness of performance provided by highly skilled personnel, as well as the scale of utilization of their qualifications depend mainly upon 2 categories of determinants: social factors and economic factors meaning the given model of the functioning of the economy. Consequently education policy is seen as a purely economic category that represents the departure point for rational utilization of highly skilled personnel, which is particularly true as far economists and technicians are concerned. The readers may feel somewhat disappointed at the absence of similar analytical observations regarding other jobs and problems related to utilization of the qualifications proper to them, but the authors seem to have purposely narrowed their research field to just two professions, which, however, is to be regretted since employment of a different research strategy and approach to the problems under discussion might just as well give the opportunity of reflecting on the authors' observations to a doctor, teacher or a skilled bureaucrat who does not belong to the category of economists or the category of technicians. Though the book has some general remarks on vocational qualifications, and the authors try to establish tentative definitions of the term, still no particular references are provided and eventually the argument is confined to technical and economic qualifications. Though the analyses seem to cover somewhat too narrow a scope of problems, still the authors deserve admiration for their scrupulosity, splendid selection of evidence illustrative of the theories advanced in the argument and clear-sightedness of the judgement of the factors affecting the progress of employees' assimilation on their jobs, which are extensively discussed and comprehensively and throughly assessed in the chapter. This is best evidenced by the discussion of the employees' individual attitudes to their jobs.

Handling the problem of the attitudes towards work and job, the authors also define: the social status of the professions of technicians and economists, identify the values these vocational categories see as most essential constituents of work ethics, assess the degree of satisfaction the employees get from their jobs and point out to the factors responsible for vocational stabilization of technicians and economists.

The significant fact is that both technicians and economists as the authors' inquiries demonstrate do not hold their professions in too high an esteem. Most technicians do not identify themselves with their jobs and tend to treat them instrumentally. Likewise the profession of the economist is not valued very much, the specific attitudes being strongly dependent upon the particular environment. Besides, of considerable importance in this respect is also the particular work establishment, its methods of work management, whose state and requirements affect the personalities and characters of both technicians and economists as well as have a bearing on the standards of work and its productivity, which are frequently determined by the employees' attitude to their work and by the scale of satisfaction they get with their jobs. For the satisfaction appears to be a prerequisite for the achievement of the most desirable effects of work. Thus the authors' reflections on the outcome of studies on the sources and preconditions of the employees', satisfaction are of great concern as regards the problems related to work standard meaning not only effects of performance on the job, but also variety of reasons to derive satisfaction from work and the available prerequisites of attachment to the job. Apparently it is contentment derived from work that underlies determination to continue on the job, which also has a favourable bearing on the way an employee perceives his vocation qualifications. Satisfaction from work you do makes you see it as being more attractive than it objectively is, improves the general atmosphere at the work establishment, and the environment's attitude towards the activities involved, as well as fosters the emergence and growth of the sense of self-esteem consequent upon the full utilization of your qualifications. Thus legitimate seems the conclusion the authors derived from their studies that attachment to the job is largely dependent upon the existence of opportunities of utilizing one's qualifications whose direct or indirect manifestation is contentment with work.

The final part of the book deals with the problem of maintaining proper balances of qualified manpower. It is linked to the dillema the higher education is confronted with, namely "of either restricting or saturating the market for qualified labour". The authors favour the option of saturating the labour market with qualified manpower as they see it "as the only way to ensure the proper distribution of jobs and genuine competition among qualifications and abilities overcoming the myth of the diploma and opening the way for new directions and initiatives through rational specialization". This view appears to be particularly sound considering the implications of the new strategy for planning and management in Poland, including the possibility of providing relevant work for higher education graduates and fully utilizing their qualifications, for it is not the overproduction of the highly skilled personnel that gives rise to dreary prophecies of unemployment among the intelligentsia, but the akward management of the "supply" of the diploma holders and other graduates. Thus employment policy makers should not focus on developing strategies aimed at improving assimilation of new employees, but should rather give priority to inventing methods to encourage employees to pursue novel solutions, come up with constructive criticism and show energy and enterprise. Such policy requires employment of the so-called absorption approach which consists in the pursuit of conditions which enable absorption of the highly skilled personnel by the employment system, and in designation of the consequences this could have upon admission policy, job structure and occupational roles.

Well-worth quoting is the authors' final conclusion that "the education system should provide young people with both polytechnical and general knowledge, while the bulk of specialization should take place on the job and be adaptable to changing technical conditions." This means there have to be many changes, both within the doctrine of education that has prevailed hitherto and in the way the educational institutions function. This has important implications for extramural institutions as well. It means that the employers themselves also have to decide what forms of on-going education will have to be provided within their work establishments and in special extramural institutions. While providing all categories of employees with general education will always remain a primary objective, as it makes further learning possible, it proves beneficial when it comes to taking on a different job or specialization, and scales-down reluctance towards innovations in work and education practice.

INTERNATIONAL PUBLISHING IN SELECTED INSTITUTIONS OF HIGHER LEARNING

Publications of Polish Scientific Publishers (PWN) in Foreign Languages

by

Rafał Łąkowski

Polish Scientific Publishers began to operate in May 1951. Over the thirty-five years which have elapsed since its foundation, the institution has become a publishing house engaged in issuing publications covering a wide range of subjects including the humanities, exact and natural, as well as the basic technological and agricultural sciences.

Among the types of publications there are: scientific literature, compendia, monographs, compilations of texts taken from a variety of sources with critical comments and supplementary information, textbooks, supplementary materials, photo-copied typescripts for students, general and professional encyclopaedias, Polish language dictionaries, and scientific journals. In the years 1951 - 1985 there came out 37.6 thousand PWN publications.

Polish science could hardly develop without contacts with world science. That is why PWN has always taken pains to publish translations of important foreign publications, and with time it began to offer Polish texts for translation. Close business-like contacts have been established with foreign institutions: the Soviet Nauka i Visshaya Shkola and its counterparts in Belorussia and the

Ukraine, Akademie Verlag in Berlin, Akademii Kiado in Budapest, the publishing houses affiliated to the Academies of Sciences in Prague, Bratislava, Sofia and Bucharest, with which yearly exchange of catalogues and publishing guides has been carried out including translation proposals. As part of the regular co-operation, regular foreign book exhibitions have been organized in Polish towns and cities, and in exchange Polish publications have been shown in other socialist countries. Recently such exhibitions were presented in the Soviet cities of Kiev, Novosibirsk, Riga, Alma Ata, Vilna and Minsk.

Apart from the well-established types of co-operation with publishers in the capitalist countries including their copyrights purchases, the form of co-production has been pursued since 1959. The products are publications in foreign languages jointly featured by PWN and a foreign publishing institution. They are mainly works by Polish writers, and materials from scientific symposia and congresses. Among the Polish authors: J. Groszkowski, L. Infeld, K. Kuratowski, I. Malecki, A. Mostowski, W. Nowacki, W. Olszak, J. Plebański, W. Sierpiński, W. Świętosławski, R. Sikorski, W. Szafer, A. Zygmund, K. Ajdukiewicz, W. Doroszewski, T. Kotarbiński, J. Krzyżanowski, O. Lange, K. Michałowski, S. Ossowski, M. Ossowska, B. Suchodolski, W. Tatarkiewicz, J. Topolski.

By the close of 1985 the number of such publications totalled 500. Naturally most decisions in choosing the particular titles for publishing have been made by PWN due to its good relationship with the executives of foreign publishing houses. International book fairs held in Warsaw, Frankurt on the Main, Moscow, Belgrade, and Leipzig and Sofia have proved to be of great importance to development of the co-operation.

At present the list of our main partners in co-production includes: Pergamon Press Ltd. (England) — since 1958 the number of the publications has totalled 55, with some 127,000 copies; Elsevier Science Publishers (Holland) — 36 publications since 1958, with some 48,000 copies; D. Reieel Publishing Co. (Holland) — 20 publications since 1958 with some 24,000 copies; North-Holland Publishing Co. (Holland)

— 20 publications since 1958 with some 36,000 copies; Ellish Horwood Ltd. (England) — 6 publications since 1958 with some 10,000 copies; M. Nijhoff Publisher (Holland) — 5 publications since 1958 with some 4,500 copies; J. Wiley and Sons Co. (England) — 3 publications with some 7,500 copies; Dr W. Junk (Holland) — 2 publications with some 2,000 copies.

Among the examples of the publications that came out over the past 5 years: *Physics and Evolution of the Earth's Interior*, (vol. 1 - 5) edited by Teisseyer, A. T. Troskolański: *Dictionary of Hydraulic Machinery*; M. Demiański's: *Relativistic Astrophysics*; *Proceedings of the International Congress of Mathematicians in Warsaw* (vol. 1 - 2) edited by M. Olech and Z. Ciesielski; A. Wawrzyńczak's: *Group Representations and Special Functions*; J. Mikusiński's: *Operational Calculus* (vol. 1 - 2); S. Rolewicz's: *Metric Linear Spaces*; Z. Galus': *Fundamentals of Electrochemical Analysis*. There have also been PWN publications intended for foreign readers which have been issued independently with no co-operation by a foreign publisher. Among the examples: *A History of Poland*, edited by S. Kieniewicz, and, *A History of Polish Literature* by J. Krzyżanowski, and also *Dzieła wszystkie Mikołaja Kopernika* (*The Complete Works by Nicolaus Copernicus*), this last item being published in several languages.

Well-worth mentioning are the series on the Archeology of the Mediterranean and those featured by the PAS (Polish Academy of Sciences), Institute of Mathematics, both of which are published in foreign languages; the latter comprises the following publications: Fundamenta Mathematicae, Studia Mathematica, Acta Arithmetica, Colloquium Mathematicum, Dissertationes Mathematicae. The item "Banach Centre Publications" is the series edited by the Stefan Banach International Mathematical Centre affiliated to the PAS Institute of Mathematics. It is published in foreign languages too.

The bulk of the PWN exports are publications in English which has become the major language of international exchange of information in science.

PWN also offers concluding agreements with foreign firms on sales and purchases of copyrights. In the years

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1958 - 1985 such deals resulted in the publishing of 50 titles in German, 40 in Italian, 39 in Hungarian, 37 in Spanish, 36 in English, 30 in Czech, 16 in the Slovak language, 23 in Japanese, 21 in Russian, and 19 in French.

The exports also comprise books in the Polish language. Owing to the efficient PWN information and promotion system operating at International Book Fairs and foreign exhibitions, its books and periodicals have been available in book-stores and libraries of scientific institutes and universities in almost all European countries as well as in Americas, Asia and Africa. Part of these publications are the PWN periodicals published in foreign languages. There are 44 such journals, in 110 titles published by PWN. Among the examples: Bulletin de L'Academie Polonaise de Sciences, Dialectics and Humanism, Sovremiennaya Visshaya Shkola, Acta Biochemica Polonica, The Ring, Acta Physica Polonica, Uspiehy Mehaniki, Reports of Mathematical Physics, Fundaments Informaticae, Polish Journal of Chemistry, Acta Astronomica, etc.

PWN has also handled exports of publishing service, bulk of which has been provided for Pergamon Press.

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Polish Scientific Publishers recommend publications by the Institute of Science Policy, Technological Advancement and Higher Education of the Ministry of Science and Higher Education intended to supplement and modernize the basic work potential of academic teachers and research workers.

The series, *Biblioteka Nauczyciela Akademickiego* (*Library of the Academic Teacher*) features methodological guides, publications comprising results of research into effectiveness of education and issues related to upbringing and education, and also to variety of academic teachers' and students' concerns.

These publications include: K. Jaskoł — *Wychowanie w szkole wyższej. Problemy teoretyczno-metodyczne* (*Development of Character and Mental Powers in Institutions of Higher Education. Theoretical and Methodological Aspects* *of the Problem*), 183 pp.; S. Korliński — *Neurotyzm wśród studentów* (*Neurotic Susceptibility Among Students*), 277 pp.; Z. Kosyrz — *Wychowanie patriotyczne młodzieży akademickiej* (*Patriotic Education of Students*), 196 pp.

The series, *Monografie i Studia* (*Monographs and Studies*) features works by eminent experts concerned with theoretical aspects of higher education and research policy, organization of academic schooling in Poland and in other countries, as well as to social and economic aspects of education.

Among the already published books: W. Kryczyński — *Wyższe szkolnictwo rolnicze w Polsce* (*Agricultural Universities in Poland*), 207 pp.; C. Maziarz, E. Widota — *Zagadnienia metodologii podręcznika akademickiego* (*Problems in Methodology of the Academic Handbook*), 133 pp.; *Międzynarodowa współpraca naukowo-techniczna. Wybrane problemy* (*International Co-operation in Science and Technology. Selected Aspects*) under the scientific supervision of W. Brzost, 130 pp.; T. Skoczny — *Ustanawianie i realizacja wielkich przedsięwzięć naukowo-technicznych w teorii i w praktyce* (*The Development and Implementation of Great Scientific and Technological Projects*), 265 pp.

The Series, *Dokumenty, Informacje, Bibliografie* (*Documents, Information, Bibliographies*) features texts taken from variety of publications, essays, papers and studies on higher education in Poland and in other countries; bibliographies of publications on specific problems, as well as bibliographies of professional journals. Among the publications: *O doskonaleniu studiów wyższych w Niemieckiej Republice Demokratycznej i w Polsce Ludowej* (*On Improvement of University Education in the German Democratic Republic and in People's Poland*) edited under the scientific supervision of T. Lewowicki and W. Arnold, 189 pp.; W. Okrasa — *Efektywność zespołów badawczych. Wyznaczniki poziomu osiągnięć i charakteru aktywności badawczej* (*Effectiveness of Research Teams. Determinants of the Standards of Their Achievements and of the Character of Research Efficiency*). 73 pp.; *Szkolnictwo Wyższe i praca zawodowa w Republice Federalnej Niemiec i w Polsce. Materiały z seminarium* (*Higher Education and Professional Work in the Federal Republic of Germany and Poland. Seminar Materials*). Compiled under scientific supervision of A. **Buttler**, J. **Kluczyński** and U. **Teichler** (part 1. 200 pp., part 2. 242 pp.).

The Series, *Technologia Kształcenia* (*Educational Technology*) features works by experts and researchers concerned with programming syllabus design, methodology, technical teaching aids and other practical aspects of didactics. Among the publications: *Programowanie dydaktyczne w szkole wyższej* (*Didactic Programming in Universities*), under scientific supervision of K. **Denek**, 201 pp.; *Technologia kształcenia. Aspekty metodologiczne i prakseologiczne* (*Educational Technology. The Methodological and Praxiological Aspects of the Problem*), under scientific supervision of F. **Januszkiewicz**, 121 pp.

The series, *Planowanie i organizacja badań naukowych* (*The Planning and Management of Scientific Research*) features compilations of works. The contents of the recently published volumes includes: vol. 9. A. **Buttler** — *Analiza dynamiki i struktury kadr w sferze B+R w latach 1970 - 1982* (*The Analysis of Dynamics and Composition of Personnel in the R&D Sphere in the Years 1970 - - 1982*); W. **Okrasa** — *Analiza produktywności naukowej zespołów badawczych — pomiar, uwarunkowania i dynamika zróżnicowań wyników* (*Analysis of Scientific Productivity of Research Teams — the Measurement, Determinants and Dynamics of Diversity of Findings*); P. **Dittman**, A. **Kania-Gospodarowicz**, I. **Kuropka**, R. **Pawlukowicz**, B. **Radzikowska**, Z. **Rusnak** — *Prognozowanie liczby kadr naukowych w Polsce w 2000 roku* (*The Forecasting of the Number of Scientific Workers in Poland in the Year 2000*), 194 pp.; vol. 10. B. **Cichomski** — *Trzy konteksty karier naukowych: społeczny, organizacyjny i epistemologiczny* (*The Three Dimensions of Scientific Careers: Social, Organizational, and Epistemological*); J. **Zalewski** — *Ocena kadr naukowych i naukowo-dydaktycznych w świetle badań i literatury naukowej* (*The Rating of Scientists and Teachers as an Outcome of Research and Scientific Literature*), 152 pp.; vol. 11. Z. **Jach**, J. **Szczepanik**, Z. **Matusiak**, E. **Stawasz** — *Wprowadzenie reformy gospodarczej i jej wpływ na działalność innowacyjną* (*The Implementation of the Economic Reform and Its Impact on Innovative Activity*);

L. Białoń, T. Wojtowicz — *Problemy oceny pracowników naukowych w świetle opinii autorytetów naukowych (The Rating of Scientific Workers Following the Opinions of Outstanding Scientists)*; J. Jabłecka — *Mechanizm popierania nauki akademickiej przez rząd federalny USA (The Mechanism of University Science Promotion by the U.S. Federal Government)*, 126 pp.

PWN (the sign) PWN — *Polish Scientific Publishers Praxiological Studies.* Collective work edited by W. GASPARSKI and T. PSZCZOŁOWSKI, PWN 1983, co-production with Reidel Publishing Company, Dordrecht — Holland, Boston — USA, London — England, XIV+418 pp. The book has essays on praxiology by eminent Polish scientists, such as Tadeusz Kotarbiński, Oskar Lange and distinguished cyberneticist and economist Henryk Greniewski. The publication also contains essays by younger representatives of the Polish praxiological school engaged in the pursuit of general praxiology or some of its branches.

Polish Contributions to the Science of Science. Collective work edited by B. Walentynowicz. PWN 1982, co-production with D. Reidel Publishing Company, Dordrecht — Holland, Boston — USA, London — England, 294 pp. The book is not concerned with one particular aspect of the study of the progress of human knowledge. It features a wide range of problems demonstrating the interdisciplinary character and comprehensiveness of the science of science. Among the authors: Florian Znaniecki, Maria i Stanisław Ossowscy, Tadeusz Kotarbiński, Bohdan Walentynowicz, Wojciech Gasparski, Ignacy Malecki, Klemens Szaniawski, Eugeniusz Olszewski, Marian Mazur, Jan Kaczmarek.

ŁĄKOWSKI Rafał, director and editor-in-chief of the "Państwowe Wydawnictwo Naukowe" Publishing House, ex-editor-in-chief of the daily "Sztandar Młodych", and President of Publishers' Society.

Publications of Warsaw University

The Warsaw University Publications have published two hundred nineteen titles in the category of scientific literature in 1981 - 1985. Forty four of those books have been published in foreign languages (this number does not include books of collective authorship, which contain papers or articles in Polish and foreign languages).

Continuous, nonperiodical publications:

Acta Philologica, neophilology, language: Polish and foreign — (no) 12. Warsaw 1983, pp. 121 — linguistic subject. A book in French.

Africana Bulletin, interdisciplinary, language: English, French — vol. 30. Warsaw 1981, pp. 258, vol. 31. Warsaw 1983, pp. 256, vol. 32. Warsaw 1985, pp. 238.

American Studies, interdisciplinary, language: English — vol. 1. Warsaw 1983, pp. 182, vol. 2. Warsaw 1982, pp. 150, vol. 3. Warsaw 1982, pp. 133, vol. 5. Warsaw 1985, pp. 76.

Fasciculi Historici, history, language: congressional and Italian — (from) 11: Adam Manikowski, *Il commercio italiano di tessuti di seta in Polonia nella seconda meta' del XVII secole*. Warsaw 1983, pp. 228 (from) 12: Stefan Meller, *Les Relations Politiques entre la Pologne et les Pays-Bas a l'Époque de la Diete de Quatro Ans*. Warsaw 1984, pp. 131.

Questiones Medii Aevi, history, language: French, English — vol. 2, Warsaw 1982, pp. 171.

Palmyrenian Studies, Mediterranean archeology, language: Polish and congressional — from VIII. Warsaw 1985, pp. 163 — Book in French and English.

Publicational series (issued in series):

"Russian and Slavic Philology Studies" — vol. 7 from the series: Galina Milejkowskaja: *Polskije zaimstwowanija w russkom litieraturnom jazykie XV - XVIII wiekow*. Warsaw 1984, pp. 177.

"Les Cahiers de Varsovie" — item 3 from the series: Collective work, *Jean Potocki et le Manuscript trouve a Saragosse*, II issue. Warsaw 1981, pp. 310; item 8 from the series: Collective work: *Le Comique Verbal en France au XVI^e siecle*. Warsaw 1981, pp. 248; item 9 from the series: Collective work: *L'Illustration du Livre et la Litterature* *au XVIII^e Siecle en France et en Pologne*. Warsaw 1982, pp. 310; item 10 from the series: Collective work: *Voltaire et Rousseau en France et en Pologne*. Warsaw 1982, pp. 312; item 11 from the series: Collective work: *Apollinaire au Tournant du Siecle*. Warsaw 1984, pp. 262; item 12 from the series: Collective work: *Autour du XVIII^e Siecle en France et en Pologne*. Warsaw 1985, pp. 160.

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Publications of Jagiellonian University

Scientific publications of Jagiellonian University are published in the periodical Scholarly Books. Among the 26 ZN Jagiellonian University series — four are published in foreign languages (mainly in English).

Reports on Philosophy — no. 9 was issued in 1985, the next one is being published. They are collective books, one book appears every year.

Reports on Mathematical Logic (up till 1985 co-published by the University of Silesia) — the last issue (no. 19) appeared in 1985, the next one is being published. The series publishes both Polish and foreign authors.

Acta Cosmologica — vol. XIII was published in 1985, the next one is being published, contains Polish and foreign authors.

Universitatis Jagiellonicae Acta Mathematica — book no. XXIV appeared in 1984. This series publishes mainly authors from Cracow.

In the past few years the archeological series of ZN Jagiellonian University was published almost entirely in foreign languages. The following positions have appeared: J. K. Kozłowski (ed.): *The Origin of the Chipped Stone Industries of the Early Farming Cultures in the Balkans.* „Prace Archeologiczne", book 35, 1984; J. Chochorowski: *Die Vekerzug-Kultur. Charakteristik der Funde.* „Prace Archeologiczne", book 36, 1985; J. Śliwa: *Egyptian Scarabs, Scaraboids and Plaques from the Cracow Collections.* „Prace Archeologiczne", book 38, 1985.

Within the framework of the historical series, the following subseries are published in foreign languages:

„Studia Austro-Polonica" (in German) Up till now 3 volumes have appeared: 1 — 1978, 2 — 1980, 3 — 1983 (the next volume will go to press in the nearest future). The series is edited by Prof. Józef Buszko from Jagiellonian University and by Prof. Walter Leitsch from Vienna University. It publishes Polish and Austrian authors. Volume 3 was dedicated to the 300th anniversary of the Relief of Vienna and contained the works of authors representing (apart from Poland), Vienna, Graz, Ankara, Oxford, London and Albany.

„Études et matériaux de l'histoire des Universités" — edited by Prof. Mariusz Kulczykowski, it contains materials from sessions organized every two years by Jagiellonian University. So far three collections have appeared: *L'histoire des universités. Problèmes et méthodes* — 1980; *L'université et l'enseignement extra-universitaire XVI^e - XIX^e siècles* — 1983; *Les grandes réformes des universités européenes du XVI^e au XX^e siècles* — 1985; The authors represent Polish and foreign university circles (Prague, Paris, Birmingham, Lejda, Gandawa, Jena, Zurich, Nancy).

„Studia Italo-Polonica" (in Italian) — edited by Prof.

Stanisław Cynarski from Jagiellonian University and Prof. Ryszard K. Lewański from Bolonia University. The editorial committee includes: Giuseppe Dell'Agata, Maria Di Salvo, Józef A. Gierowski, Leszek Hajdukiewicz, Tadeusz Ulewicz, Giuseppe Vecchi, Jerzy Wyrozumski, Valdo Zili. Volume 1 appeared in 1982, vol. 2 is being edited, while the next volumes are under completion.

In 1984 Book no. 72 of the "Historical Works" appeared, entitled "Universities During World War II" which contained materials from a symposium organized to celebrate the 40th anniversary of "Sonderaktion Krakau". Apart from Polish authors, it published articles of scholars from Belgium, France, Holland, Czechoslovakia, U.S.S.R., G.D.R., U.S.A., Austria and Italy.

Other series have published the following items in foreign languages: T. Bałuk-Ulewiczowa, M. Korosadowicz (eds.): *Proceedings of the Third April Conference of University Teachers of English*. „Prace Historycznoliterackie", book 64, 1986.

Series: Linguistic Works: A. Szulc (ed.): *Studien zum Polnisch-Deutschen Sprachvergleich* 1, book 71, 1981; A. Czapkiewicz: *Arabic Idioms*, book 75, 1983; S. Widłak (ed.): *La théorie et la pratique de l'enseignement du français dans les departaments d'etudes francaises en Pologne*, book 77, 1984; A. Szulc (ed.): *Studien zum Polnisch-Deutschen Sprachvergleich* 2, book 80, 1985; U. Dąmbska-Prokop (ed.): *Actes de la IVe Conférence des Linguistes Romanisants Polonais*, pp. 81, 1985.

Series: Juristic Works: W. Litewski: *Landrecht des Herzogtums Preussen von 1620*. I. Strafrecht, book 104, 1982; W. Litewski: *Landrecht des Herzogtums Preussen von 1620*. II. Strafprozessrecht, book 107, 1983; L. Pauli: *Peines corporelle's et capitales dans la législation des états européens des années 1751 - 1903*, book 113, 1986.

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Studies on Social and Economic Geography published to celebrate the 25th Congress of International Geographical Union in Paris 1984, book 60, 1984; M. Hess (ed.): *Studies on Physical Geography published to celebrate the 25th Congress of International Geographical Union in Paris 1984*, book 61, 1984; Z. Czeppe (ed.): *Polar Studies of the Jagiellonian University Spitsbergen Expeditions 1980 - 1982*, book 63, 1985.

Series: Polonical Works: *Emigration from Northern, Central and Southern Europe: Theoretical and Methodological Principles of Research*, International Symposium, Cracow, November 9 - 11, 1981, book 8, 1984; In addition, the series "Dissertations Qualifying for Assistant-Professorship" at Jagiellonian University" (small circulation, xeroxed) has published the following items in foreign languages: E. Dąbrowa: *La politique de l'état Parthe à l'égard de Rome — d'artban II à Vologèse (ca 11-ca 79 de n.e. et les facteurs qui la conditionnaient*, 1983; C. Jędrzejek: *Quantum Dynamical Model of Desorption Processes of Atom from Surface*, 1984; E. Tabakowska: *Restrictiveness as a Semantic and Pragmatic Property of English and Polish Relative Clauses*, 1985; M. Kłańska: *Problemfeld Galizien. Zur Thematisierung eines nationalen und politisch-socialen Phänomens in deutschsprachiger Prosa zwischen 1846 und 1914*, 1985; A. Pisowicz: *Origins of the New and Middle Persian Phonological Systems*, 1985; R. Bochenek-Franczakowa: *Le roman épistolaire à voix multiples en France de 1761 à 1782*, 1986.

Publications of the Adam Mickiewicz University in Poznań

The Scientific Publishers of the Adam Mickiewicz University in Poznań which has been operating for 25 years now is one of this country's major university publishers. The annual production amounts to some 24,000 pages. The publications include: 1) scientific periodicals (being the so-called continuous publications), 2) monographs (being part of the individual publishing series), 3) duplicated typescripts, 4) guide-books.

These publications are mostly by the University's staffers, still the editors welcome contributions by other Polish and foreign writers. The typescripts supplied by the writers are edited by three sections: Philological Sciences, Socio-Historical, Exact and Natural Sciences and Technological Problems. The publications are typographed and photocopied. Part of each publication's edition is set aside for exchange with foreign research centres, which is handled by the Central Library.

Sixteen out of the twenty-eight scientific periodicals are published entirely in foreign languages. The range of subjects covered by the publications which have earned longstanding recognition and respect includes: linguistics, English studies, history and social sciences. Among the titles: "Papers in Studies in Contrastive Linguistics", "Studia Anglica Posnaniensia", "Glottodidactica" (this last publication is concerned with foreign language teaching, issued in German and English), "Studia Historiae Oeconomicae" (published in several foreign languages), "Studia Historica Slavo-Germanica", "Studia Metodologiczne" ("Methodological Studies") (featuring results of research work carried out by the Poznań philosophical school), "Artium Quaestions" (publication concerned with history of art), "Neodidagmata" (presenting new teaching techniques). The achievements of the individual philological studies are featured by: "Studia Polonistyczne" ("Polish Studies"), "Studia Germanica Posnaniensia", "Studia Rossica Posnaniensia", "Studia Romanica Posnaniensia", "Symbolae Philologorum Posnaniensium".

The recent years have seen the establishment of new interesting continuous publications: "Człowiek i Społeczeństwo" ("Man and Society"), "Lituano-Slavica Posnaniensia", "Folia Praehistorica", "Balcanica Posnaniensia", "Studia Phonetica Posnaniensia" (published partly in English).

Among the periodicals concerned with exact and natural sciences particularly worth-mentioning are: "Quaestiones Geographicae", "Functiones et Aproximatic", and the more recent: "Acta Magnetica", "Concepts and Methods in

Geography" (both of which are published in English). "Listy Biometryczne" (partly in English).

All the articles in scientific periodicals published in Polish are followed by summaries in foreign languages. All Polish monographs include extensive summaries in foreign languages.

Part of the monographs are published in foreign languages. Among the recent publications: *A Commemorative Book in Honor of Florian Znaniecki on the Centenary of His Birth*, ed. by Z. Dulczewski; A. F. Majewicz: *The Grammatical Category of Aspect in Japanese and Polish in a Comparative Perspective*; M. Karoński — *Balanced Subgraphs of Large Random Graphs*; L. Urbaniak — *Genetic Variation of Carex Arenaria L. in Poland; Studien zur europäischen Barock- und Rokokoskulptur*, hrsg. von K. Kalinowski M. Krysztofiak — *die Thematisierung der Okkupationszeit im dänischen Gegenwartsroman; An Ainu-English Index-Dictionary to B. Pilsudski's "Materials of 1912"* — compiled by A. F. Majewicz, E. Majewicz.

This year's list of publications includes inter alia: *Nordische Tangenten. Überlegugen zur neueren Prosa skandinavischer Autoren* -hrsg. von M. Krysztofiak; W. Bialik — *Johannes Mario Simmel oder unvermeidliche Erfolg*; C. Karolak. *Poetik des Voruteils. Untersuchungen zum Fremdstereotyp im westdeutschen Roman der fünziger Jahre.*

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